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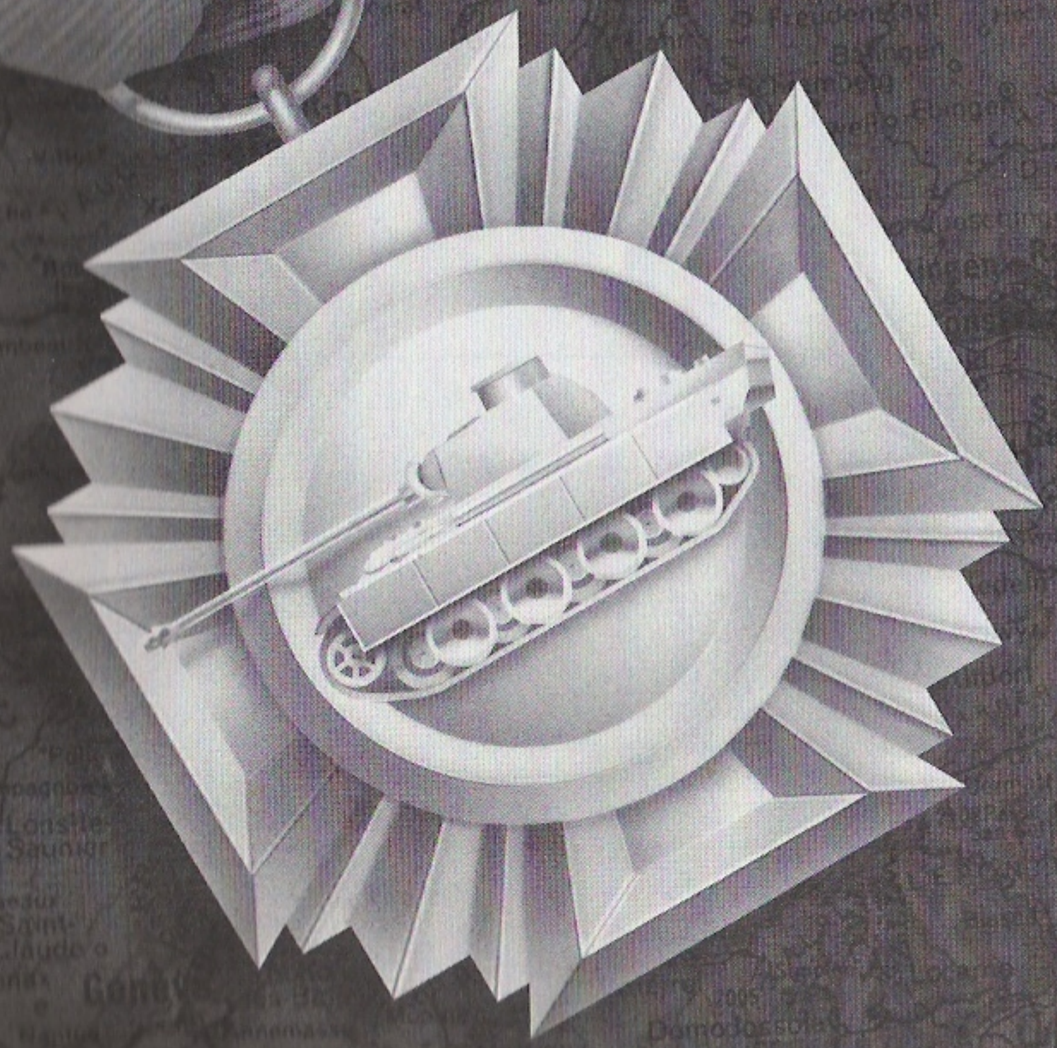
PANZER GENERAL™



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INTRODUCTION

Imagine that you are the Panzer General.

You are the brightest and best of the new Axis generals during the Second World War. Your tactical skills will be tested in armored assaults, amphibious invasions, paradrops, naval engagements, and fierce aerial combat for control of the skies. Go from triumph to triumph, invading and seizing the capitals of Great Britain, the Soviet Union, and ultimately the United States of America on your way to conquering the whole world!

Can you achieve a place in history?

Getting Started

If you want to get a quick start, refer to the "Tutorial/Quick Start" section of the manual which begins on page 3. It provides a step-by-step battle plan to familiarize you with the menus and aspects of a PANZER GENERAL scenario, and should help you win the first battle of the 1939 Blitzkrieg. If, however, you prefer to familiarize yourself with the game as a whole, turn to the "Menus" and "Game Play" sections on pages 14, and 22, respectively.

What Comes with This Game?

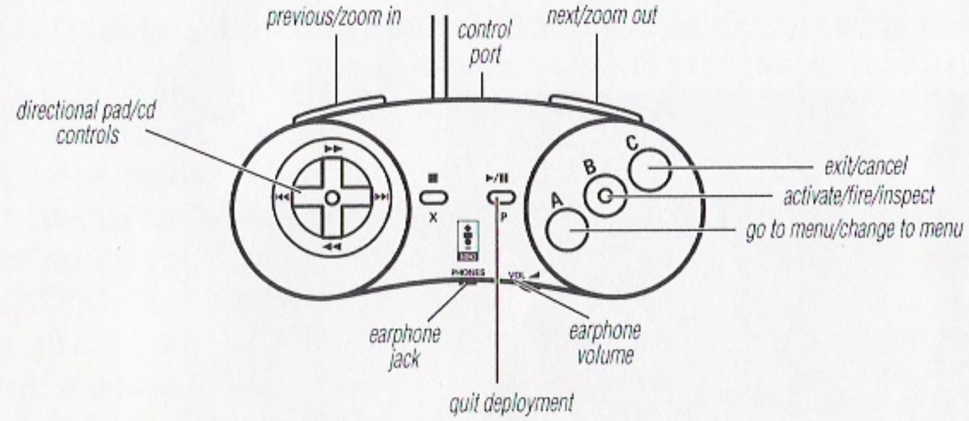
Your game box should contain this rule book and a CD-ROM. The rule book explains how to play and contains important information on menus, scenarios, unit classes, and equipment. To play, place your CD into the 3DO machine and close the drawer.

Game Controls

This manual uses the word "button" to refer to two different things. One reference is to the **A**, **B**, and **C** buttons on the game controller.

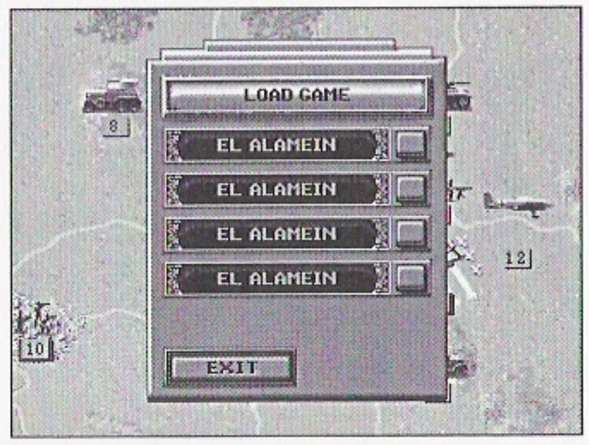
- The **A** button takes you from the Tactical Map to a menu where you can set preferences and issue commands.
- The **B** button controls units. Use the **B** button to move, shoot, and inspect your own and any enemy units that are visible.
- Holding down the **C** button while pressing the Previous button zooms in; the **C** button and Next buttons zoom out. When used by itself, the **C** button returns to play from any menu without performing any actions.
- When a button description has both a word and a letter, such as Exit C, this indicates that you can either press the Exit C button or the **C** button.

Buttons also refer to the rectangular icons found on menus which control many of the game's preferences. They are operated by using the directional pad to highlight them and pressing the **B** button.

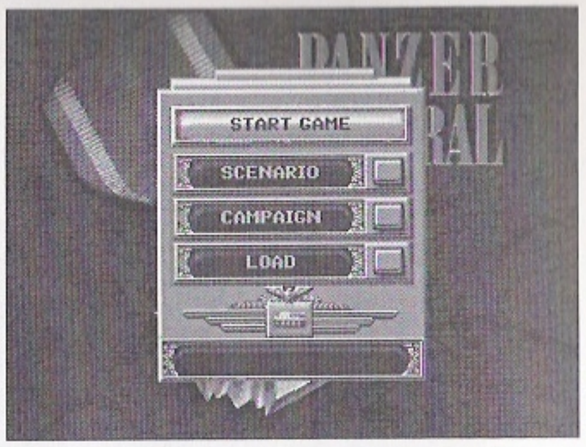


Saving Your Game

The CD icon on the Options Menu is called the Load/Save button and is used for loading or saving games. Pressing the Save button presents the Save Menu. There are four save positions, and the game will be saved using the name of the current scenario and the turn number. Once you have selected a save position, press the **B** button. Pressing the **C** button returns to the Options Menu without saving.



TUTORIAL/QUICK START



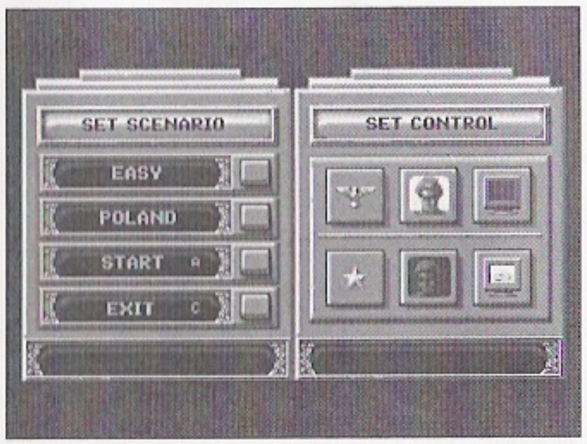
This tutorial provides step-by-step suggestions to familiarize you quickly and easily with the basic menus, options, and units in the first PANZER GENERAL battle scenario of the 1939 Blitzkrieg.

After the cinematic opening screen appears, press any button to start. If you wish to skip the cinematics in future games, press any button before the cinematics start.

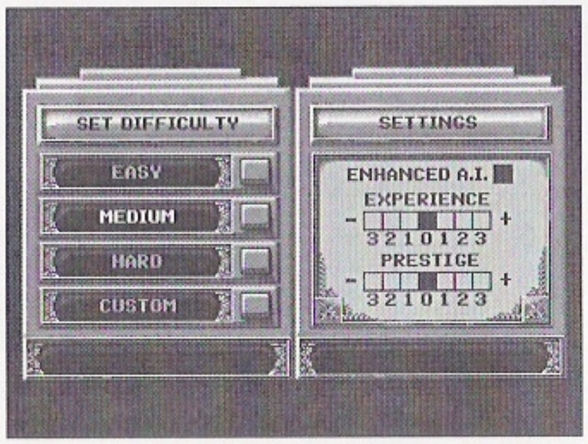
From the Start Game Menu, your choices are: Scenario, Campaign, or Load. Use the directional pad to highlight the Scenario button, and press the **B** button to activate it.

Setting Preferences

The Set Scenario and Set Control menus appear when you press the Scenario button. The Set Control menu has a human control and a computer control button for each side. The Set Scenario menu has buttons for changing the difficulty level, the scenario, Start A to start playing, and Exit C to quit without making any changes.



The difficulty level starts out on the EASY setting. Pressing the button next to this setting opens the Set Difficulty and Settings menus. The Set Difficulty menu can be set to EASY, MEDIUM, HARD, or CUSTOM. The CUSTOM setting gives you the chance to adjust the computer's "Artificial Intelligence" (AI) by choosing how much experience and prestige the computer is given during play.

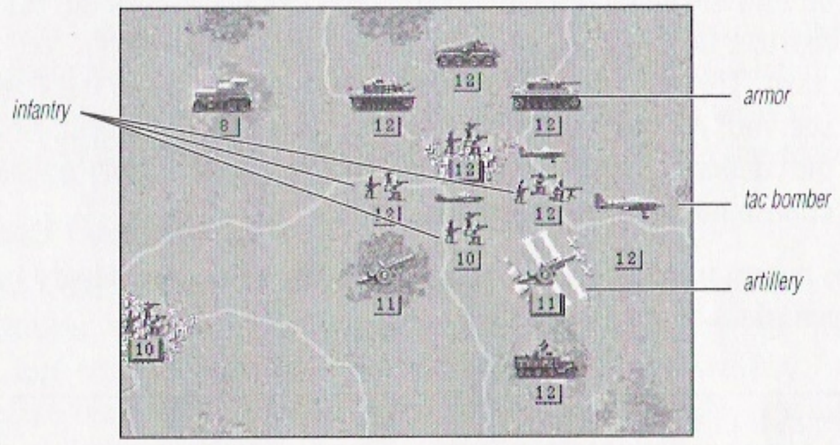


Press Exit C to return to the Set Scenario menu. Once there, press the button next to Poland. The Scenario menu appears offering the choice of six scenarios. The currently selected scenario is listed in the panel centered at the top of the menu. The scenario description is in the large box and the six other scenario choices are listed at the bottom of the menu. The **?** button in the lower right corner of the scenario description box opens a window with the scenario briefing.

From the Scenario menu press Exit C to return to the Set Scenario menu. With the settings on EASY for difficulty and Poland for the scenario, press the Start A button to begin play.

Once chosen, the title screen of the scenario appears and displays the turn number, the date, the current weather, and the number of turns remaining.

Press any button to proceed beyond the title screen of the scenario and start your first turn. The Tactical Map, which represents the battlefield, appears in the main view. The game begins with the Unit Information preference turned on. As each unit is highlighted, important information is displayed in the corners of the screen. The lighter colored hexes are those visible to your troops. Your panzer units are gray and ready for battle.



Game Turns

Each scenario in PANZER GENERAL is made up of a number of "turns." In each turn you and your opponent are given a chance to perform many activities such as moving units, attacking enemy units, and resupplying units. When your turn is done and you have moved or given orders to all of your units, press the **A** button to return to the Main Menu, then highlight and press the End button. Afterward, the enemy moves its units and completes its turn.

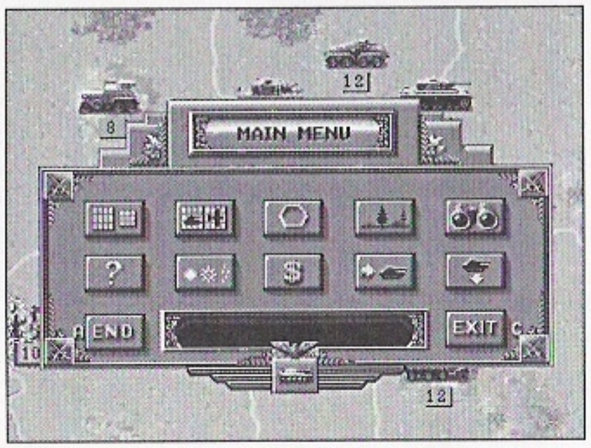
Highlight any German unit and press the **B** button to make it ready for orders. On the map the lighter colored hexes are the hexes that the selected unit can move to. The unit's statistics are shown in the corners of the screen. Be aware

that an active unit cannot move to a hex occupied by another unit (unless one is an air unit and the other is a ground or naval unit).

Press the **C** button to drop the active unit without taking any action.

With the Unit Information preference on, highlight and activate other units to see their summary information. You may also use the highlight to view the statistics of visible enemy units. Press the Unit Information Mode button on the Unit Menu to turn this preference off.

For now, press the **C** button to drop the selected unit and press **A** to go to the Main Menu.



Notice that when you highlight a menu button, that button's function is displayed in the text display at the bottom of the menu. Use this feature to describe menu buttons until you are familiar with them.

From the Main Menu, simply press the **A** button or highlight and press the ? button to go to the Options Menu. Then highlight and press the Hidden Units On/Off button to hide enemy units and their strengths, and highlight and press the Turn Weather On/Off button so your first game is unaffected by bad weather.

Note: If you find the going difficult, a tactic you can use versus the computer is to choose Hidden Units Off at the beginning of every turn, then switch it "on" before you end each turn. That way you get to see the enemy, but when the enemy moves, he can't see you! As you become a more accomplished general, however, you may feel that defeating your enemy on honorable terms is more appropriate and you may choose not to use this feature.

Press the **A** button to go to the Main Menu. You are now ready to begin the Poland scenario.

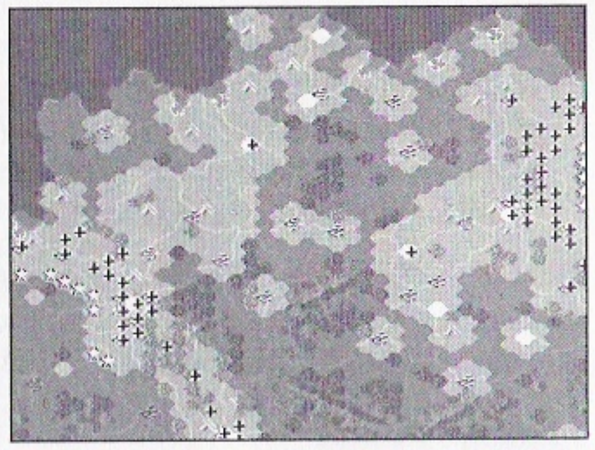
Remember that in PANZER GENERAL...

- *The* **A** *button takes you from the Tactical Map to one of the many menus where you can set preferences and issue commands.*
- *The* **B** *button activates units and enacts the various choices that you make for an active unit.*
- *The* **C** *button, pressed with the* Previous *or* Next *buttons, controls the zoom. In addition, the* **C** *button drops the currently active unit.*

Battle Plan

Although a variety of battle plans can be successful in PANZER GENERAL scenarios, the following is a sound plan for "Poland," the first scenario of the 1939 campaign. The date is September 1, 1939 and your army's orders are to conquer the enemy with a lightning fast attack, a "blitzkrieg." In ten days they must capture the cities of Lodz and Kutno.

View Strategic Map



As the soon-to-be-great (or even greatest!) Panzer General, it is always a good idea to start every battle by viewing the Strategic Map of the battleground and formulating a battle plan. You can view the Strategic Map one of two ways. The first way is to switch to the Main Menu using the **A** button and press View Strategic Map button; or you can zoom out using the **C** and Next buttons, and then press the **C** button by itself. A map appears which displays the entire battlefield: your Axis units with black German crosses, Allied forces with gold stars, and your victory objectives in bright green. White hexes are objectives which you have already won and must be held throughout the battle. It may be necessary to use the directional pad to scroll around some of the larger campaign maps.

To view a portion of the map up close, press any button to return to the Tactical Map, or press the **C** button while pressing the Previous button to zoom in. The screen becomes the Tactical Map. To see the rest of the Tactical Map in this view, use the directional pad to shift the map in the direction you wish to move. The screen scrolls in that direction with the highlight remaining in the center.

Divide and Conquer

As a Panzer General you have been trained to strike swiftly in order to capture your objectives with armored spearheads, surround slow-moving enemy defenders, and crush them with your following infantry and artillery. Your battle plan therefore focuses on organizing your forces into flexible, combined-arms battlegroups, each aimed at a specific objective. Enemy forces in non-critical sectors can be ignored or dispatched with small detachments.

In this battle, your most effective plan is to divide your units into two battlegroups, one a northern attack force to take the cities of Kalisz and Kutno and the other a southern attack force to take the city of Lodz. Other cities earn you additional prestige but cost you more than they are worth if they delay your seizure of the objectives you have been ordered to take within the time you have been given.

The battle plans for each battlegroup and their turn-by-turn implementation are described below.

- Battlegroup North should include 2 tank units, 3-4 infantry units, and an artillery unit towed by a truck. After defeating the 10th Polish Cavalry unit, the battlegroup is to quickly besiege and capture the city of Kalisz. With newly-gained prestige, another tank unit should be added to the force as it moves on to crush enemy tank units, cross the Warta river, and then lay siege to the city of Kutno.
- Battlegroup South should include one tank unit, 2-3 infantry units, an artillery unit with truck-transport which you should purchase in the first turn, and several infantry units with transport capability. This battlegroup is to head east across the Warta River, bypass the cities of Radomsko to the south and Ozorkow to the north, and besiege the heavily defended city of Lodz.

Cities other than Lodz and Kutno are secondary to your battle objectives and should only be attacked if in the direct path of your units (like Kalisz). In later scenarios, however, you can risk units against other cities to gain more prestige points.

Prestige Points

Prestige rather than money is the medium of exchange in PANZER GENERAL. Prestige points represent the influence you have earned with the high command by taking and holding cities, destroying enemy units, and winning battles as quickly and decisively as possible. In the same manner, however, losing cities, losing units, and losing battles costs you prestige.

You can exchange prestige points for new units, replacements, and new equipment for existing units.

♦ *Turn 1*

Battlegroup North

Your orders are to attack the 10th Polish Cavalry unit with tank units, then with infantry units.

In this scenario, it is best to lead attacks versus enemy infantry and artillery units in clear terrain with tanks first and follow up with infantry.

Units that have not acted are indicated by the word Ready under the name of the unit in the upper left corner of the screen. This allows you to easily see which units you have moved and which you have not.

Movement

Highlight and press **B** on a tank unit to activate it for movement. A black hex border marks the currently active unit. Each unit has a movement point allowance per turn that is spent as it moves. The number of movement points it costs to enter each hex depends on the terrain entered. It takes a unit's full turn to enter a river hex except where there is a bridge. The hexes to which a selected unit can move are lighter colored. In PANZER GENERAL, most units can both move and attack in their turn. For this scenario, you need to know that tanks and infantry can attack either before or after moving, but artillery can only attack before moving.

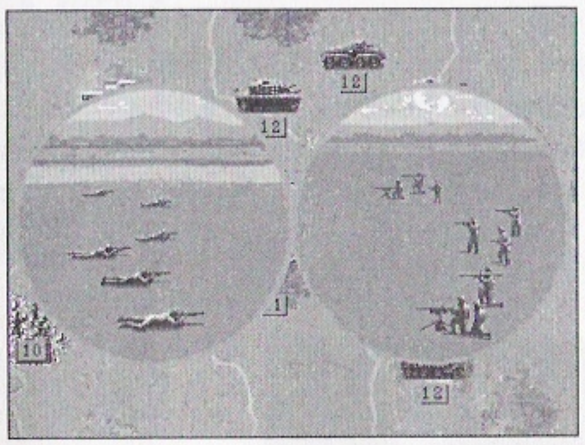
Move the highlight and press **B** on the hex you want the unit to move to.

When moving a unit, and before selecting another unit to be moved, you can cancel your move by immediately pressing **B** with the active unit highlighted or pressing the Abort Move button on the Unit Menu. In effect, Abort Move returns the status of your unit to the pre-order phase, and it can still move, resupply, etc. This is useful in case you change your mind about that unit's move or wish to move another unit first.

Keep in mind that once a unit has moved and you activate another unit, you cannot go back except to look at unit statistics.

Attack

To attack, move the tank unit to a lighted hex adjacent to an enemy unit. If at this time you are concerned about which enemy units are appropriate to attack, the highlight becomes a set of red cross-hairs when over enemy units which are appropriate targets. A bar appears showing the projected losses. For example, the bar could read "Losses Att 2, Def 5." This would mean that the projected losses for that attack would be 2 for the attacking side and 5 for the defending side. Keep in mind that these are projected losses; they may not be the same in actual battle! When you decide to attack, press the **B** button when the red cross-hairs are over the enemy unit.



You must attack with the selected unit before you activate another unit to move.

As the battle ensues, unit losses are indicated on the unit strength flag underneath each unit, and battle details are listed on a bar that appears at the bottom of the screen.

Use another tank unit to attack the 10th Polish Cavalry, then attack with one or two infantry units.

Once the 10th Polish Cavalry unit is eliminated, or retreats, try to move the artillery unit into its transport (truck) and up to the northern tip of the forest. If you cannot move it this turn, try to do so next turn.

Mount onto Transport

To load the artillery unit into its transport, move the highlight over the unit and press the **B** button to activate the unit; then press the **A** button to open the Unit Menu. The Mount button has a truck with a two-ended arrow pointing at it. Press the Mount button. Once the unit is mounted , the unit icon changes to its transport type, in this case a truck. The number of lighter-colored hexes increases, which indicates the mounted unit's movement range.

Units in transports do not have high defensive capabilities. If at all possible, first dismount units before attacking the enemy.

Note: In later scenarios, if you want to purchase a transport for an infantry unit, you must move the unit into a friendly city hex and choose Upgrade from the unit menu.

Move any other Battlegroup North units (totaling two tanks and three infantry) within two hexes of Kalisz to prepare for the siege next turn.

Battlegroup South

Your orders are to move a tank unit as far east toward the Warta river as possible, followed by infantry units in transports and an artillery unit you purchase. Leave one infantry unit to protect the city of Breslau. If no transport is available for an infantry unit, use it to flank the other units and provide quick defense.

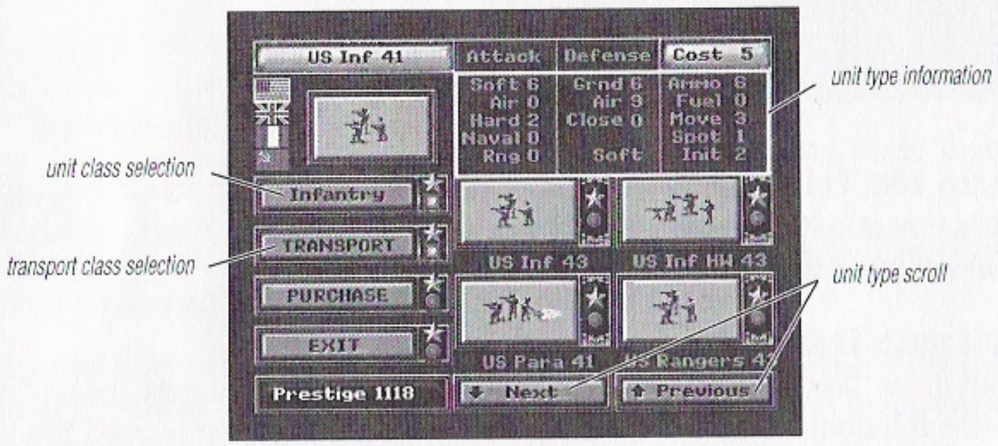
Once again, in this scenario it is best to lead attacks versus enemy infantry or cavalry with a tank first and infantry following after.

Purchase a Unit

To ensure success, you should purchase an artillery unit with transport capability. To get another artillery unit you use your influence with the high command, or "Prestige Points," to purchase a unit.

Press the Purchase Unit button from the Main Menu and the Purchase Type menu appears. The Purchase Type menu displays unit classes available with a green light and units which are above the cost of your current prestige points are indicated by a red light. Units which are not yet available for historical reasons are also indicated with a red light. Press the Artillery button to see the available artillery class units.

The Purchase Screen shows: the unit name, the type of unit, up to four available types of artillery units, the statistics of the currently selected unit type, and buttons to scroll through the various units of that type. The cost for the unit appears in the "Cost" box above the statistics. When you press the button which represents the 7.5 leFk 16nA artillery unit, the unit's statistics appear in the table at the top right corner of the screen. This unit (more become available in the future) costs 84 prestige points. There are four other rectangular buttons:



- The top button displays the class of unit currently being viewed; in other words, if the current unit type is artillery, the button reads Artillery. Pressing this button, however, changes to the next class of unit listed on the Purchase Type menu.
- Transport — Switches to show the available types of transport, including statistics and cost.
- Purchase A — Deducts the unit's cost from your prestige points and exits to the Tactical Map so you can deploy the unit.
- Exit C — Returns to the Tactical Map without making a purchase.

If transport is available for a unit, a green light appears next to the Transport button. Statistics for this transport type can be seen by pressing the Transport button. There are two choices of transport for your artillery unit: either the Opel truck transport, or the SPW half-tracked transport. Highlight one or the other and press **B** to choose it and view its statistics. The new total cost for both the unit and the transport appears in the "Cost" box above the statistics.

Press the Purchase A button to confirm the purchase. If you want to cancel a purchase before placing the unit on the map, press the **C** button. **Note:** Once a unit has been deployed, there is no going back!

Be aware that the units you purchase must be placed in or adjacent to friendly or captured cities where there is no adjacent hex occupied by an enemy, so your artillery unit should be placed around the city of Breslau. Move the highlight to one of these hexes and press **B** to place the unit. Next turn you should load it onto a transport and move it along with the southern attack force.

From the Main Menu, press the End button, and answer "Yes," to confirm the end of your turn.

♦ *Turn 2*

Battlegroup North

Your advance in Turn 1 should have placed you in position to attack and capture the city of Kalisz. After you do so, purchase a new tank with your newly-won prestige.

Dismount

Activate the artillery transport in the forest and press Dismount from the Unit Menu. Place the highlight over Kalisz and red cross-hairs appear. Even if the casualties the artillery can inflict are minimal, when you attack the city the entrenchment level of the defending Polish infantry should be weakened. Since the artillery unit is making a ranged attack, it suffers no risk of losses by bombarding. Fire by pressing the **B** button. After shooting, you can choose to move the artillery one hex while remaining deployed or Mount it to move it to another location. Remember that units mounted in trucks or half-tracks fight poorly. Do not move the artillery next to Kalisz as it may block your other units and it can bombard just as well from 2 hexes away. If you choose not to mount the artillery unit, press the Next button to end its turn.

Beware of cities defended by infantry with artillery adjacent to them, as the artillery can support the infantry by shooting at your units as they attack the infantry. If an artillery unit is adjacent to Kalisz, try to attack and destroy, drive away, or at least weaken the artillery unit before assaulting the city. This should not be hard since artillery are vulnerable to attacks by tanks and infantry.

When you capture Kalisz, press Purchase Unit to purchase a new tank unit (a Pz III or Pz IID is recommended) with your accumulated prestige points and place it near the city. If there are no enemy units adjacent to Kalisz, lighter colored hexes indicate you may deploy the unit there. If you want to cancel a purchase before the unit is deployed, press the **C** button.

If you have not captured Kalisz, repeat the attack next turn.

Battlegroup South
Your goal is to cross the Warta River, blitz through any enemy units which may have approached, and continue on to Lodz. Move the tank leading the Battlegroup across the river with the infantry in trucks behind. Be sure to Mount the artillery unit you purchased at Breslau and move it as far east as possible.

Go to Unit
If you find that you are forgetting which units have moved and which have not, press the Go To Unit button on the Main Menu. A display shows units which have moved with a red light and units which are ready for orders with a green light. If the Unit Information Mode is on, the words "Ready" or "Moved" will appear in the upper left corner when you activate a unit to indicate that the unit has or has not moved.

After you have moved all of your units, press **A** to open the Main Menu, press the End button, and answer "Yes," to confirm the end of your turn.

♦ *Turn 3*

Battlegroup North
Continue to move tank units northeast across the river towards Kutno. Attack enemy artillery and armored vehicles, as these can do serious damage to your infantry as they follow behind your tanks. Leave an infantry unit which has suffered the most behind in or near Kalisz as a garrison and replace its losses.

Pace yourself and beware of the urge to launch a premature attack on Kutno. First, clear away any enemy units near the city which might interfere with your attack, then bombard the city with your artillery while your infantry move into position to attack.

Replacements
You may have suffered serious casualties in some units up to this point. It is good practice to promptly reinforce units with low strengths by highlighting them and pressing the Replacements button on the Unit Menu. A unit can receive replacements only if it does not take any other action during the turn (except mounting or dismounting). If units have fallen below 8 strength points they should receive replacements. Strengthening your infantry before the assault on Kutno may delay the attack, but it gives you more time to drive away nearby enemy units and allows you to deploy your artillery in range of the city to commence a bombardment. Keep in mind that enemy units adjacent to the unit that is getting replacements reduce or even prevent the replacements from arriving.

Once the unit has been supplied, the view returns to the Tactical Map with that unit still active. Press Next to drop that unit and activate the next one.

Battlegroup South
Use your tank unit to attack enemy cavalry, particularly enemy tank units you have spotted. Because infantry are vulnerable while mounted in trucks, Dismount them at the beginning of the turn and advance them towards Lodz on foot. Move your artillery, if possible, within a 2-hex range of Lodz to allow it to dismount next turn and begin a bombardment. Since they are vulnerable to any enemy attacks, take care to put tank or infantry units between any enemy units nearby.

♦ *Turn 4*

Battlegroup North
You may want to build another infantry unit near Kalisz to allow the garrison unit to help the continuing attack on Kutno.

Battlegroup South
Bombard Lodz for several turns with artillery before sending in your infantry. This avoids the risk of troops being massacred if the Poles put up a "rugged defense." Do not divert units from the effort against Lodz by attempting to attack the nearby cities of Ozorkow or Brzeziny. Once Lodz is taken, you may be able to capture another city.

Turns 5-10

Supply Units
Be aware that tank units and units with transport can run out of fuel and all units can run out of ammo. To avoid this, units can use their turn to resupply by highlighting them and pressing Supply Unit on the Unit Menu. Units cannot resupply when adjacent to enemy units, unless in a city, airfield, or port. Units that receive Replacements are automatically resupplied at the same time.

Battlegroup North should be able to take Kutno easily within a turn or two. Be wary, however, of enemy units attacking from the city of Posen in the west. They can move towards Kutno, Kalisz, or your base at Breslau. Detaching a unit to guard Breslau ensures against this risk. If Kutno falls immediately, you can send forces west towards Posen or south to help in the attack on Lodz, which may take a little longer since Battlegroup South is somewhat weaker. When both Kutno and Lodz have been taken, the scenario immediately ends.

After the Battle

Save or Exit
After the battle you may inspect the battlefield before choosing to Save or Exit your game. Don't worry if your first experience in the Poland scenario ended without gaining the mission objectives, or with an Allied victory. PANZER GENERAL is designed to be thought-provoking and challenging — there is more than one approach to victory. War is often as much a battle against time and terrain as it is against the enemy, and the best-laid plans can be defeated by bad weather, rugged defense, or just plain bad luck.

You now know the basics of playing PANZER GENERAL. The interface is highly intuitive and you may wish to simply continue playing or read through the manual for more detailed information about the game mechanics and for tactical advice.

Tactics Checklist

Remember the following tactics in any scenario you play:

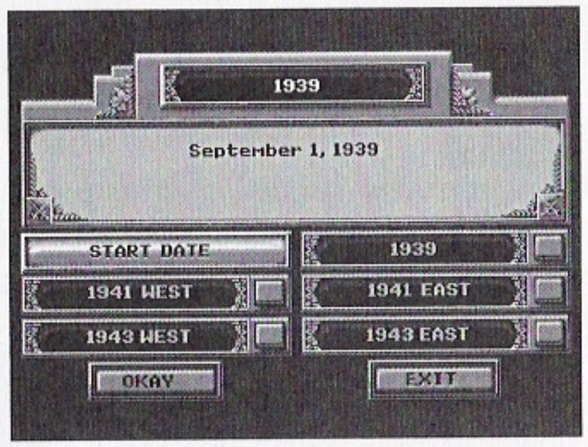
- When a unit attacks, it uses one unit of ammo. When it's out of ammo, it can't attack another unit, and must resupply (when not adjacent to an enemy unit).
- Cities secondary to your battle objectives should only be attacked if they are in the direct path of your units. On the other hand, in later scenarios, risking units to capture other cities gains you more prestige points.
- All units have movement points which are expended as the unit moves. Each hex costs a number of movement points, based on the type of terrain entered. When you move a unit the legal hexes that unit may move to are lighter colored. When you move units across rivers without using available roads or crossings, all movement points for those units are used.
- Check your units' ammo frequently, and if low, resupply.
- Replace weakened units even when they are close to enemy positions. It's better to suffer loss than annihilation.
- Mount units which have transports whenever possible, but be sure there is armored protection close by. A given unit can only embark on a naval transport at a port or coastal city. Only infantry, light artillery, and light anti-tank units may use air transports at an airfield. Embarking or disembarking a unit can only be done at the beginning of the unit's turn. Naval transport units can disembark into an adjacent land square, air transport can only disembark at airports, while paratroopers can disembark anywhere. Disembarking ends the unit's turn.
- Replacements, Disband, Upgrade, and Elite Replacements can only be done at the beginning of the unit's turn. If any of these options are chosen, the unit's turn ends.
- Abort Move returns a unit to pre-order status, and cannot be used after the unit has acted by attacking, resupplying, receiving replacements, or by moving adjacent to hidden enemy units. If you press the Next button after moving a unit it ends that unit's turn.
- Keep in mind that in the second battle of the 1939 campaign (the battle of Warsaw), aircraft units are available and are necessary for an Axis success.
- Even though the "expected losses" may not be in your favor, you may still need to sacrifice some of your unit strength to achieve your goals. This is especially important when attacking enemy units with high entrenchment levels. Even though the attack may not be effective, the enemy entrenchment level lowers at least one point, and is more vulnerable the next turn.
- The enemy cannot place newly-purchased units around its cities if you have a unit adjacent to the city.

Other tactics on game play in general can be found in the "Designers' Notes" section, beginning on page 32.

STARTING A CAMPAIGN GAME

Campaign games are made up of a series of scenarios which represent the operations conducted over a period of time during World War II. You begin with a group of core units, which are carried over from scenario to scenario, and are also given command over other units that headquarters has made available. You can supplement these forces with units purchased using prestige points which become part of your core force.

Choosing a Campaign



The Campaign button on the Start Game menu opens the Campaign Selection menu. Each selection represents a different phase of World War II on the Western or Eastern Fronts. Highlighting and pressing the **B** button selects the campaign. Pressing the OKAY button returns you to the previous menu. Pressing the Start button on the Campaign Game menu will begin the campaign game you have selected.

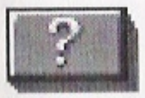
MENUS

There are three basic menus in PANZER GENERAL: the Main Menu, the Options Menu, and the Unit Menu. The following menu options are available on each menu as buttons. These buttons change based on the active unit and what options are available. Unavailable options appear pressed-down and cannot be used. **Note:** Buttons which are referred to as "toggles" do not return to the Tactical Map even though they may make a change to it. Pressing the Exit C or the **C** button returns you to the Tactical Map.

Main Menu

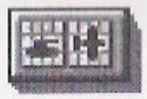
The Main Menu is the menu you use most during the game. From its selections you are able to change views of the battle area, choose views of either ground or air units, view unit statistics, change the conditions of the battlefield, purchase new units and equipment, and go to units waiting for orders.

Highlight menu buttons by moving across them with the directional pad, and press the **B** button to choose them. Highlight and press the ? button to toggle between the Main Menu and the Options Menu. An illustration of the Main Menu appears on page 5.

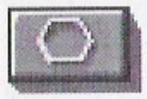


Go to Options Menu: displays game options for you to choose from.

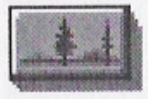
View Strategic Map: toggles between the closest zoom mode and the strategic map. Note: only surface units or air units will be visible depending on which mode is set using the View Surface/Air button.



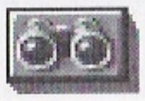
View Surface/Air Units: toggles between viewing your land and air forces. When both a surface and air unit occupy the same hex, the view determines which one of the icons is large and which is small on the Tactical Map. The large icon is the one that you activate when you highlight it and press B.



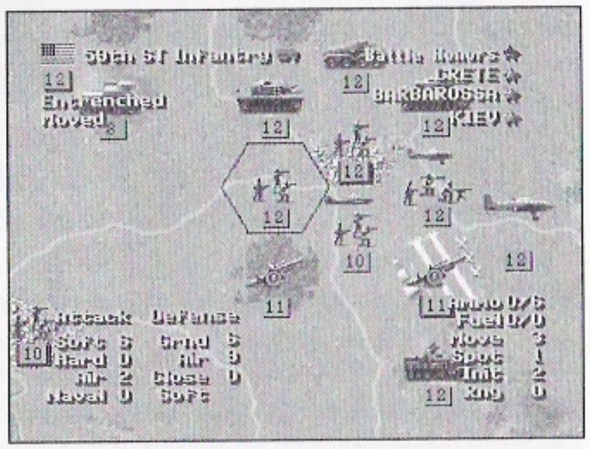
Turn Hexsides On/Off: adds or removes the hex grid from the map.



Show Terrain: removes ownership flags and units to reveal the terrain. Press any button to return to the game.

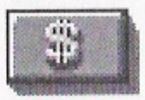


Turn Information Mode On/Off: toggles the unit information overlay on or off. The Unit Information mode displays detailed information about the current unit in the corners of the Tactical Map screen. This information is important in evaluating the unit's combat capabilities. In campaign scenarios this screen also displays battle honors won by the unit for distinguished performance in particular battles.



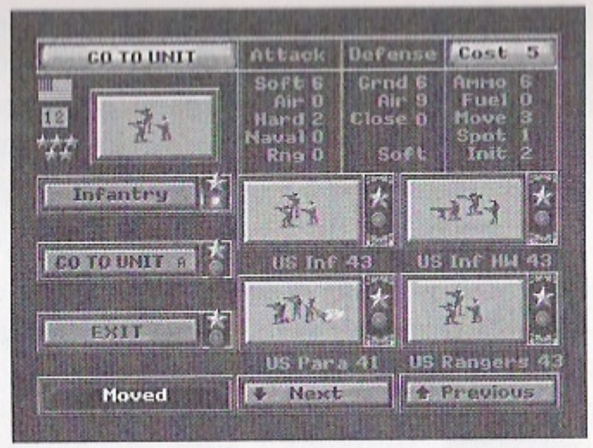
When unit information is on, statistics for the active unit appear in the corners of the screen. The upper right corner shows the unit nationality; name; type; attached transport type, if any; strength; entrenchment level; and move status. The upper left corner shows the unit's Battle Honors and Experience. The lower left corner shows the unit's attack and defense ratings. The lower right corner shows the unit's supply status, remaining movement, spotting range, initiative and attack range. For a detailed description of these statistics, please see the "Unit Statistics Descriptions" section on page 20.

Weather Report: opens a window that shows you the weather for the current turn and the next turn. Press any button to return to the game.



Purchase Unit: allows you to add reinforcements. These are added to the core army if more core units are available, or to auxiliary forces if only auxiliary units are available. Purchase units with prestige points and place them in or adjacent to friendly cities (if land units) and friendly airfields (if air units). You cannot purchase ships. See the "Prestige Points" section of this manual on page 25 for more information.

Go to Unit: displays a screen similar to the Purchase Units menu. This screen shows statistics for all of your units and indicates the units which are waiting for orders with a green light and those that have already acted with a red light. Pressing the Go To Unit button in the upper left corner switches the view to the currently selected unit. Pressing the Next or Previous buttons scrolls through the available units.



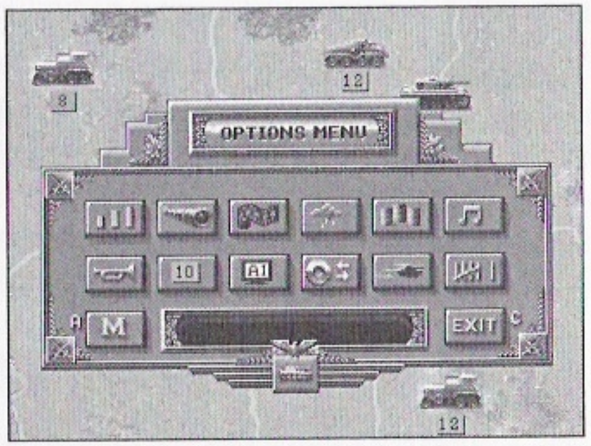
End Turn: ends your turn and proceeds to your opponent's turn. You will be asked to confirm that you wish to end your turn.

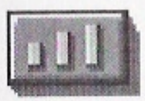
Place Unit: permits the deployment of units not placed during the initial deployment phase, on any succeeding turn. Units deployed using this feature may only be placed in the initial deployment area. Use of this feature is completed by pressing the Quit Deployment button.

Exit: returns to the Tactical Map.

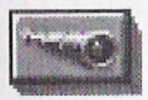
Options Menu

The Options Menu provides an extended range of game preferences for you to choose from. Buttons referred to as "toggles" do not return to the game directly.





Set Difficulty: opens the Set Difficulty Menu where levels can be set to Easy, Medium, Hard, or Custom. Custom difficulty allows you to adjust enemy experience and prestige levels separately, and also allows you to turn off the computer's "Artificial Intelligence" (AI).



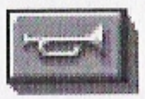
Hidden Units On/Off: changes the view on the Tactical Map of units, by either using your units' spotting levels, or by displaying all enemy units at once.

Turn Animation On/Off: toggles combat animations. Turning the animation off makes the game move more quickly. Animations in progress can be ended at any time by pressing any button.

Turn Weather On/Off: toggles realistic weather conditions.

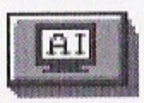
Turn Supply On/Off: toggles the supply rules on and off.

Music Volume: opens a window with On/Off controls and a volume control for adjusting the volume. The **A** button returns you to the game.



Sound Effects: opens a window with On/Off controls and a volume control for adjusting the volume. The **A** button returns you to the game.

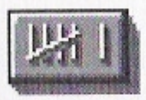
Hide/Show Unit Strengths: hides or shows the view of each unit's strength.



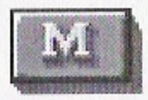
Hide/Show Computer Move: hides or shows the computer's moves. Even if this is on, the computer's attacks are still shown.

Load/Save Game: ends the current battle and has buttons which allow you to Save your game, Load a saved game, press Exit to return to the Tactical Map, or Quit which restarts the game. To quit from this point, simply eject the CD from the game unit.

Turn On/Off Speed Move: toggles the speed at which enemy moves are displayed.



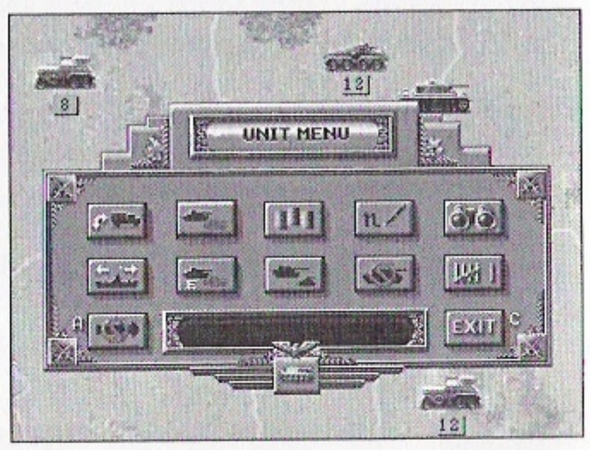
Show Score: displays a "casualties" list showing the number of unit classes the Axis and the Allies have lost in the current scenario or campaign. The screen displays scenario losses, and in a campaign game an additional screen displays campaign losses.



Go to Main Menu: returns the view to Main Menu.

Exit: returns to the Tactical Map.

Unit Menu

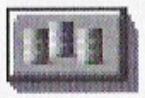


The Unit Menu appears when you highlight a unit during your turn and press the **A** button.

The Unit Menu provides options which are unique to the unit you have selected. You can choose to mount the unit if transport is available, purchase replacements and upgrades, disband, give your unit a name, examine unit statistics, go to another unit, or resupply. Be aware, however, that some of these commands require the unit's entire turn to execute, so once selected, the unit cannot do anything else that turn.

Mount/Dismount: allows units to be moved more quickly by available transport. Mount units which have transport whenever possible, but be aware that mounted units make easy targets. After you Mount/Dismount and move your unit, you must then choose whether or not you want to Abort Move. Unless selected immediately after the unit's movement, you will not be able to take back the move you just made.

Replacements: replace lost strength points and automatically resupply the unit as described under "Supply Unit" below. Replacements begin with zero experience which is averaged with the unit's current experience to generate a new experience level. This option ends the unit's turn. Units can get replacements anywhere, except that air units can receive replacements only when on a friendly airfield or carrier hex. A unit receives fewer replacements if one or two enemy units are adjacent. If three enemy units are adjacent, the unit cannot receive any replacements unless it is in a city. Bad weather and desert terrain also reduce replacements. In between campaign scenarios under-strength units are brought up to strength with replacements. Once replacements have been assigned, press Next to proceed to the next available unit.

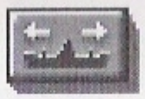


Supply Unit: re-supplies the selected unit with up to half its maximum capacity and takes one turn. Units receiving replacements automatically resupply. Adjacent enemy units prevent resupply except as part of receiving replacements. Snow and rain reduce resupply by 1/3. Desert terrain reduces the amount resupplied by 3/4, to a minimum of 1 ammo and 1 fuel. Once the unit has been resupplied, press Next to proceed to the next available unit.

Name Unit: allows you to personalize unit names. These names remain in effect until the end of the scenario or through the entire campaign. You may want, for example, to name units according to their capabilities or how you intend to organize them in Battlegroups. Keep in mind that units are numbered consecutively by the computer in each scenario, thus slightly changing the names you choose.

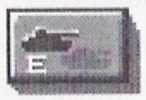
Use the directional pad to move the highlight over the letters used to create the name. The **A** button accepts the name and exits to the Unit Menu. The **B** button accepts the highlighted letter. The **C** button exits to the Unit Menu without renaming the unit.

Unit Information Mode On/Off: toggles the unit information overlay on or off. When unit information is on, statistics for the active unit appear in the corners of the screen. The upper right corner shows the unit nationality; name; type; attached transport type, if any; strength; entrenchment level; and move status. The upper left corner shows the unit's Battle Honors and Experience. The lower left corner shows the unit's attack and defense ratings. The lower right corner shows the unit's supply status, remaining movement, spotting range, initiative and range. For a detailed description of these statistics, please see the "Unit Statistics Descriptions" section on page 20.

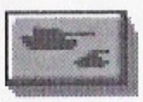


Embark/Disembark: allows most units to use naval transport, and allows infantry, light artillery, and light anti-tank guns to use air transport. When embarking, the unit's icon is replaced by a sea or air transport icon. Units can only embark on naval transport at ports or coastal cities and on air transport at airfields. Embarking and disembarking units can only be done at the beginning of a unit's turn. Naval transports can disembark into an adjacent unoccupied land hex and air transports can only disembark at any unoccupied airfield. Paratroops may choose the hex the air transport is in or any adjacent land hex as their drop zone, and are subject to drifting from the selected drop zone. Disembarking ends the unit's turn.

When you attempt to embark a unit you must leave any organic transport behind. The Confirm Abandon window opens which shows the number of transport points available and requests confirmation that you wish to leave that unit's transport behind. Example: An infantry unit you wish to embark onto a plane and transport to a newly-won airport cannot take its truck or half-track with it onto the plane. Therefore, you must confirm the abandoning of the transport or use a unit without transport. Transports that are abandoned are lost.



Elite Replacements: are treated the same way as regular replacements except that they do not reduce the unit's experience level and they cost four times as much. Although expensive, elite replacements are cheaper, point-for-point, than building a new unit with no experience. Once replacements have been assigned, press Next to proceed to the next available unit.



Upgrade: activates the Upgrade Unit screen and enables you to change the type of unit within its class and add organic transport if available. You can only upgrade units when deploying for a campaign scenario or during a scenario when in a friendly city (or, in the case of air units, on a friendly airfield) with no adjacent enemy units. Upgrading a unit during battle requires one turn.

Disband Unit: Units can be disbanded in order to create new units which are more effective in given circumstances. Example: disbanding an inexperienced infantry unit to purchase a tactical bomber to help soften up enemy defenses.

Show Score: displays a "casualties" list showing the number of unit classes the Axis and the Allies have lost in the current scenario or campaign. The screen displays scenario losses, and in a campaign game an additional screen displays campaign losses.

Abort Move: appears when you have selected a hex for the unit to move to and allows you to take back the move just made. You cannot abort attacks, or movement in which a unit spots previously hidden enemy units.

Exit Menu: exits the menu without choosing an option.

Unit Statistic Descriptions

Current Ammo
The amount of ammo the unit currently has. Avoid running out of ammo, since without it you cannot shoot at the enemy. Note that many rounds of ammo can be consumed in a single turn if a unit defends against several enemy attacks.

Current Fuel
The amount of fuel the unit currently has. Avoid running out of fuel while adjacent to the enemy or you can be trapped and unable to resupply. Units that run out of fuel have their number of strength points halved for combat.

Maximum Fuel
The maximum fuel capacity of the unit. For certain units this capacity also reflects susceptibility to breakdowns.

Maximum Ammo
The maximum ammo capacity of the unit.

Entrenchment
This unit's current total entrenchment level. All ground units can entrench, but at different rates. All terrain types have a base entrenchment level from 0-4 which ground units in that hex with lower entrenchment levels automatically obtain at the end of their turn. Units that have not moved are assumed to dig in each turn even if they attack, resupply, or perform some other action. Each turn the unit does not move, it digs in. Infantry is best at entrenching, and anti-aircraft and tanks are the worst. Units can entrench up to a maximum of 5 above the base entrenchment level for the terrain. If a unit moves out of the hex it loses all its entrenchment levels, so pick a good position before digging in.

Each attack on an entrenched unit, whether successful or not, reduces its entrenchment level by one level. Repeated attacks in a single turn can even reduce the entrenchment level below the base level for the terrain, thus facilitating further attacks during the same turn.

Base entrenchment levels are: 4 for fortifications; 3 for cities; 2 for forests, bocage (small fields bordered by hedgerows), and mountains; 1 for rough terrain and non-city port facilities; and 0 for everything else.

Experience / Battle Honors
Each time a unit takes part in a combat it gains experience, and the more successful it is in combat, the more experience points it gains. 100 experience points equal an experience level, symbolized by a gold star in the unit's summary information. The maximum experience level a unit can achieve is 5. When two units fight, their relative experience levels affect who shoots first and determines relative casualties. Experience also determines overstrength size, reduces the risk of rugged defense, and modifies initiative. Units with 2 or 3 experience levels should be considered veteran troops and those with 4 or 5 levels elite troops. Elite replacements should be used to preserve the quality of veteran and elite units. Making veteran and elite units overstrength (see below) is valuable because they are better able to withstand and inflict casualties in combat.

Units that proceed from one scenario to another within a campaign game and achieve at least one experience level (one gold star) earn a Battle Honor for that campaign.

Strength
Units begin with 10 strength points. Losses are suffered in strength points, and a unit reduced to 0 strength points is destroyed. Units with experience have their maximum strength increased by 1 per experience level, up to a maximum strength of 15 points at 5 experience levels. Units can add overstrength points at a rate of one per turn by selecting Elite Replacements. If you lose strength, rebuilding the unit to overstrength status must be done the same way. Overstrength units are very potent in battle.

Unit Equipment Statistic Descriptions

Class of Unit Equipment
This indicates the unit class (such as tank, artillery, infantry, artillery, capital ship).

Cost
The prestige point cost of building a new unit of this type.

Maximum Ammo
The amount of ammunition the unit equipment begins with.

Maximum Fuel
The amount of fuel the unit class begins with.

Spotting
The range in hexes at which a unit can spot enemy units in fair weather.

Range
The unit's shooting range in hexes.

Initiative
In combat, initiative, together with unit experience and the type of defender's terrain, influences whether or not the attacker or defender shoots first or both shoot simultaneously.

Soft Attack
The unit's attack value against "soft targets" such as infantry, trucks, and towed weapons. Units with different colored strengths may not attack but may shoot back if attacked.

Hard Attack
The unit's attack value against "hard targets" such as tanks and half-tracks. Units with different colored strengths may not attack but may shoot back if attacked.

Air Attack
The unit's attack value against air targets. Units with different colored strengths may not attack but may shoot back if attacked.

Naval Attack
The unit's attack value against naval targets.

Ground Defense
The unit's defense value against attacks by land and naval units.

Air Defense
The unit's defense value against air units.

Close Defense
Units use their close defense value in "close assaults." When any unit attacks infantry which puts up a rugged defense, the attacking unit uses its close defense value. Units fighting infantry who are attacking into or defending a forest or city hex also use their close defense values. Since close defense values are usually less than ground defense values, this makes infantry more dangerous in non-clear terrain hexes.

Target Type
There are four target types: Soft, Hard, Air, and Naval. Each unit has a separate attack value against each type of target.

Transport
If a unit has organic transport, an icon of a truck or a half-track appears next to the unit name. The unit's statistics change when mounted to those of the unit's transport.

GAME PLAY

The Tactical Map
The Tactical Map represents the area where all movement and combat takes place. This is viewed as either a scrolling close-up view map or a single overall Strategic View map. If playing with two players, one controls all Axis forces and the other controls all Allied forces. The campaign games are for a single player who controls the Axis forces.

The scale varies from region to region, as does the actual size of the units represented. The maximum number of units allowed in a hex is one land or sea unit and one air unit.

Unless toggled with their respective menu switches, hidden enemy units and sudden changes in weather conditions can play a significant part in tactics and timing.

The following features may be on the maps:

- Maximum of 12 different types of terrain.
- Nationality flags indicating city, port, and airfield ownership.
- Victory hexes which have a nationality flag with a gold border.
- Mud and snow conditions, represented by a change in the color of the map hexes.
- Neutral hexes, bordered in blue (e.g., Sweden or Switzerland). No units may enter these hexes.

Beginning and Ending a Battle

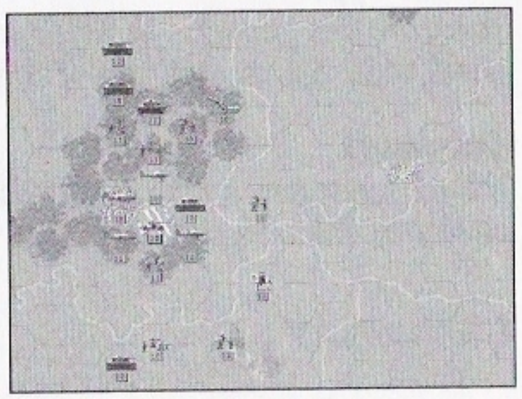
You begin a battle by selecting a scenario of the campaign game. In the campaign game, you control a core group of units through the various battles you fight. Other auxiliary units are provided to you for that battle only. Surviving core units gain experience over time, and your unit combinations reflect your own preferences. Later campaign scenarios allow more core units. Set-up is automatic in scenarios, while in the campaign games you deploy your core units within specified deployment areas.

Air and Naval Transport Points

At the beginning of each scenario which uses air and/or naval transport, air and naval transport capacity is allocated to each side. The number of units which can be transported varies with each scenario. If your forces have unallocated transport capacity, the Embark/Disembark button is not pressed down, and units can be loaded onto planes or ships. If all transport capacity is in use, the button cannot be used, and appears pressed down. See the menu description of "Embark/Disembark" on page 19 for more information.

Automatic Resupply

The following automatically resupply at the end of a turn: air units on friendly carriers, or on or adjacent to friendly airfields; naval units in friendly ports; and ground units which have not acted. The resupply rate is limited by the proximity of enemy units, terrain, and bad weather. See the menu description of "Supply Unit" on page 18.



Combat

Combat takes place when you order a unit to attack another unit. Eligible targets are indicated by the highlight becoming a set of red cross-hairs. Units with ranges of one or more hexes can make ranged attacks, i.e., shooting at the enemy without the enemy being able to shoot back (except that capital ship class units can shoot back when shot at by other capital ship units).

The order in which each unit shoots is affected by initiative and experience. Unless in a city or other terrain where the unit's initiative is limited, or facing a rugged defense (in which case the attacker's base initiative is set to 0 for the combat), each side's experience level and initiative are added to a random score of 0, 1, or 2 and the unit with the higher score shoots first. If there is a tie, both shoot simultaneously.

A rugged defense can occur in two ways: (1) if a unit's movement takes it into the hex of a hidden enemy an ambush occurs (for air and naval units this misfortune is called "out of the sun" and "surprise contact"), which is automatically treated as a rugged defense, and (2) if an entrenched unit is attacked in a non-ranged attack by any unit other than a pioniere or engineer, there is a risk of a rugged defense based on the relative experience and entrenchment rates of the two units and the defender's entrenchment level. If the entrenchment level is 0, there is no risk of a rugged defense.

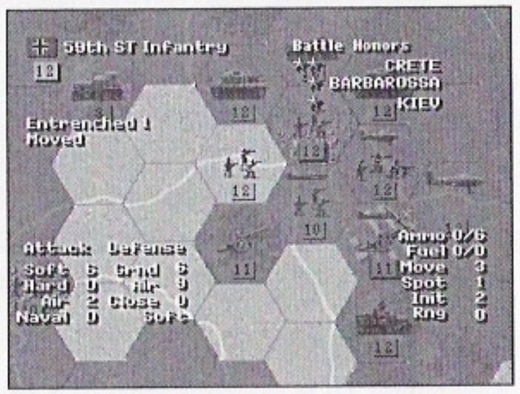
Each unit's non-suppressed strength points are assumed to shoot using their respective attack and defense values. Suppressed elements do not count in the firing order,

but suppression other than suppression from level bombers lasts only for the duration of the current combat. The attacker's strength points are halved by mud or snow for ground units. Air units may not attack in rain or snow. Strength points are also halved if the unit has run out of fuel (if it runs out of ammo, it can't attack).

Under certain circumstances, units near the defending unit shoot at the attacker before normal combat begins. Artillery units contribute defensive fire in support of any adjacent ground units. Air defense units contribute defensive fire against air attacks against any adjacent ground units. Fighters adjacent to defending bombers or ground units may intercept attacking air units (but fighters may only make one interception per turn, and each attacking air unit may only be intercepted once). Each of the above occurs prior to normal combat and without the attacker being able to shoot back. Losses and suppression from defensive fire carry over into the remaining combat. If the attacker has no more strength points in the firing order, all of them having been destroyed or suppressed, the attack is broken off immediately.

Each time a unit shoots it uses one ammo point. Defending units can easily use up several points of ammo in a single turn when defending themselves or adjacent units.

Deploying Troops After Successful Scenarios



At the beginning of a new campaign scenario, you will need to deploy your troops prior to the first turn. Your deployment area will be displayed as lighter colored hexes on the Tactical Map for the current scenario. Press the **A** button to open the Deploy Unit Type screen; unit types that are available to be deployed will have green lights next to them. Choose a unit using the Previous or Next buttons and a deployment hex using the direction pad. Press **B** to deploy the unit in that hex. You may end deployment at any time by pressing the Quit Deployment button, otherwise deployment will end when you place your last unit. **Note:** Once a unit has been placed, it cannot be moved until the game begins.

Difficulty Settings

The Set Difficulty Menu offers choices of: Easy, Medium, Hard, or Custom. The Custom setting allows you to choose how much experience and prestige the computer is given during play, and gives you the chance to adjust the computer's "Artificial Intelligence" (AI).

Go to Unit

The Go to Unit screen, available through the Main Menu, provides an overall view of which units have moved and which have not. Green lights indicate which units have yet to move. The screen also displays: unit strength, experience, name, ammo, fuel, and statistics. To view all of your units, use the Next and Previous buttons to see your other units of that type. Highlighting a unit and pressing the Go To Unit button returns to the Tactical Map with that unit ready to be activated. Press the **B** button to activate that unit.

Initiative

Initiative is determined by the equipment used in battle, the terrain upon which the battle takes place, and the experience of the units. It is also adjusted by a randomly generated score of 0-2. If an ambush or rugged defense occurs, the attacker's initiative is 0.

Movement

Each unit has a movement point allowance per turn that is spent as it moves. The movement point cost of each hex depends on the terrain in the hex, weather conditions, and the unit movement type. When you highlight a unit that has not moved, the hexes the unit can move to light up. Every movement point a unit uses costs 1 fuel, except that when the ground is covered with snow all ground units pay 2 fuel points per movement point.

Movement ends prematurely if a moving unit moves adjacent to or is ambushed by (moves into) a previously hidden unit. An ambush is treated as an attack with the defender receiving an automatic rugged defense. Entering a river hex ends a ground unit's movement, except when the river surface is frozen. The ground unit may exit river hexes normally the following turn. Entering a mountain hex ends a ground unit's movement until the next turn. Dismounted bridging engineers may serve as bridges.

Order Air Units

Air units which are low on fuel and have not been moved in your turn require orders to return to a friendly air base. You can tell when an air unit is low on fuel because a window appears to notify you that this particular unit must refuel or it will crash. If you do not move them to a friendly air base, the units may not make it back the next turn and disappear from the screen, having plummeted to their doom.

Overstrength Size

A unit with an experience level of 1 or greater, represented by at least one gold star, may be made temporarily overstrength by adding Elite Replacements when it is already at 10 or more strength points. You may only do this as long as the current unit strength is less than 10 plus the unit's experience level. Each time the player takes Elite Replacements under these conditions the strength of the unit increases by 1.

Prestige Points

Prestige points represent the influence you have earned with the high command by taking and holding cities, destroying enemy units, and winning battles as quickly and decisively as possible. In the same manner, however, losing cities and battles costs you prestige. You can exchange prestige points for new units, replacements, and new equipment for existing units. You must pay the full prestige cost of new equipment even if the cost of the new equipment for a unit is less than that of the old equipment given up. In some instances prestige may also be used to influence the course of events.

Refueling Air Units

When the fuel warning window appears, the air unit has used up half or more of its fuel and you should start checking to make sure it has sufficient fuel to return to a friendly airbase. Air units that run out of fuel, which are not on or adjacent to an airfield or on a carrier, crash and are destroyed. Air units use a minimum of half their movement allowance in fuel every turn.

Scoring and Victory Conditions

There are victory objective hexes (flags with gold borders) on the map of the scenario (on the Strategic Map, Axis victory objectives are in green, Allied victory objectives are in white). The score, or tally, of both Axis and Allied units destroyed in battle is displayed in the Show Score section of any Menu.

Spotting

If Hidden Units On/Off is on, all units become hidden at the beginning of each turn except those that are within 1 hex of a friendly city, port, or airfield or within the spotting range of friendly units. Air units' spotting range is halved by overcast weather and reduced to 1 hex when it is raining or snowing. Other units' spotting ranges are halved when it is raining or snowing.

Once a hex is spotted during a player's turn, it remains spotted for the entire turn. Any time a friendly unit moves and does not abort its move, it spots all hexes within its spotting range.

Enemy units within your unit's spotting range are automatically spotted except for enemy U-boats, which you have a 50% chance of spotting unless they are adjacent to one of your units.

Rugged Defense

Rugged defense can occur in two ways: if a unit's movement path takes it into the hex of a hidden enemy a rugged defense occurs automatically; or if an entrenched unit is attacked by a non-ranged, non-pioniere, or non-engineer unit. Unit entrenchment value, experience, and ambush chances are variables used in weighing the chance of rugged defense.

Supply

There are two types of supply: ammunition and fuel. Each time a unit shoots, it uses one point of ammo. Every movement point a unit uses costs it one point of fuel. Exceptions: when the ground is covered with snow all non-air units use 2 fuel points for each movement point.

At the end of each turn the following automatically resupply: air units which are on or adjacent to airfields, naval units which are in port, and ground units which have not acted. Ground units may not resupply, however, if there are enemy units adjacent to them and if they are not in a town. Rain, snow, and desert conditions also limit resupply.

Air units which are out of fuel and not adjacent to an airfield are eliminated.

Units normally receive 1/2 their ammo and fuel maximums during resupply. Units receiving Replacements or Elite Replacements automatically receive resupply.

Transports

All cities adjacent to an ocean hex act as ports for the purpose of embarking on troop transports. At the beginning of each scenario that uses air and naval transport, transport capacity is allotted to each side. This capacity represents the allocation of air transports and naval transports to your army and is used to move units around the map and over the sea. When you embark a unit, your

transport capacity diminishes. When you disembark a unit, your transport capacity increases.

Organic transport is transport which is permanently assigned to a unit and cannot be shared (i.e., trucks or half-tracks).

True Neutrals

True neutrals are countries like Sweden or Switzerland which no one is allowed in or over. These hexes are indicated on the Tactical Map with blue hexes.

Turn Sequence

In a given turn a unit can move once and attack once, in either order, except for artillery and air defense units which may only shoot before moving. After you have selected a hex to move to, but before attacking from that hex or selecting another unit, you may elect to Abort Move unless you contacted or moved adjacent to a previously hidden unit in the course of your move. Units may also take a variety of other actions, some of which are limited to the beginning or end of the unit's turn and some of which take the entire turn. See the "Unit Menu" section on page 17 for more information.

Unit Experience

Each time a unit takes part in a combat it gains experience. Every 100 points equals an experience level. The maximum experience level a unit can achieve is 5. When two units are in combat, their experience levels are compared and the difference modifies the outcome. Experience also determines overstrength size, influences ambush chance, and modifies initiative. For more information on experience, refer to the "Experience/Battle Honors" section in the "Unit Statistic Descriptions" on page 20.

Victory Conditions

Battles are won by taking or holding some or all of the victory objective hexes (depending on the scenario), which are represented by gold-bordered flags on the Tactical Map and by green or white hexes on the Strategic Map. Capturing towns that are not victory objectives gains you prestige points, but does not affect the victory conditions, so you should always focus on capturing the objectives you have been ordered to take. Only units of the tank, antitank, recon, and infantry classes can capture cities, ports, and airfields, although other troop types can occupy them and prevent their use by the enemy.

Weather

Weather is randomly determined based on actual weather conditions for the month of the year and weather zone in which a battle occurs. Weather may change between fair weather and storm fronts. Storm fronts can last for a number of days and have the possibility of generating only overcast weather or becoming rainstorms or snowstorms. It never rains or snows in North Africa.

Zone of Control

A unit exerts a zone of control into the six hexes around it. Surface units' zones of control affect only surface units and air units' zones of control affect only air units. When you move a unit into the zone of control of an enemy unit, your unit's movement is stopped and it must either attack or end its turn. If your unit was ordered to move to a point which takes it through a hex occupied by a previously hidden enemy unit, your unit is ambushed by the enemy unit and your unit's turn ends after combat is resolved.

UNIT CLASS DESCRIPTIONS

All pieces of equipment, referred to as units, are grouped into one of 18 different classes of equipment in PANZER GENERAL. Below is a list describing the 18 classes, types available within each class, and their tactical role.

Ground Classes

Anti-Aircraft

The primary use of the anti-aircraft (AA) class is to respond quickly to enemy air units. Unlike the air defense class, AA units may fire and move or vice versa and can attack ground units. AA units can keep up with a quick moving attack force, and if properly used, assist in mopping up enemy infantry. Protect AA units from enemy tank, anti-tank, and artillery units and you may find them very useful. Unlike air defense units, AA units must be in the same hex as enemy air units to attack them.

Air Defense

Like artillery, air defense units cannot attack after they have moved; unlike artillery, however, they cannot attack ground units. They are ideally suited for defending relatively stationary ground units against enemy airpower in defensive battles, but given time and proper protection, they can also be useful when brought up to support your offensives by fending off enemy aerial counterattacks. Because of their ranged attack and protective fire capability, well placed air defense units can keep enemy aircraft at bay around a vital city, or protect a difficult ground assault from disruption.

Anti-Tank

The anti-tank (AT) class is divided into two unit types: towed anti-tank weapons and self-propelled anti-tank weapons (the latter often referred to as "Tank Destroyers" [TDs]). The towed type are excellent on defense, especially if heavily entrenched, but their vulnerability while being towed by trucks or half-tracks makes them difficult to use effectively on the attack. When attacking, use tank destroyers instead. TDs are much cheaper than tanks for the equivalent gun size, but less well-armored and usually lack a turret. This means that they can use their initiative to get in the first shot when defending against tank attacks, but always fire second when attacking tanks themselves. This makes attacks on tanks risky unless they are already seriously weakened. The key to TD tactics against tanks is moving offensively but fighting defensively — rather than attacking enemy armor, move TDs into positions where the enemy armor is forced to attack you. For example, while your tanks strike deep through enemy lines, TDs can be used to block enemy armored counterattacks on the flanks of the advance. Although their intended purpose is to fight tanks, TDs make excellent tank-substitutes for overrunning other troops.

Artillery

Artillery cannot attack after moving. Artillery units, like anti-tank units, are divided into towed and self-propelled categories. The difference is less significant because they are too vulnerable, even when armored, to confront the enemy directly — their role is instead to bombard the enemy from a distance in support of other friendly troops. The main advantage of self-propelled artillery is that it can keep moving without having to mount and dismount. Towed artillery, in comparison, is very vulnerable and unable to fire in defense of itself on adjacent enemy units. Artillery is suitable for softening up enemy soft targets prior to an

offensive attack (even if they inflict no losses, each bombardment attack reduces the enemy's entrenchment level), and equally valuable because of its ability to provide defensive fire when adjacent ground units are attacked by enemy ground units. Artillery is best deployed immediately behind friendly units where it can support them on both offense and defense. Artillery support is especially critical if you want your infantry to have a chance of stopping armored attacks in the open.

Fort

The fort class is divided into two types: "forts," which are networks of immovable, strongly-built heavy artillery and infantry positions; and "strongpoints," which are lighter networks of pillboxes and light field fortifications. Since forts have ample reserves of ammo and strong attack values, they should shoot aggressively at any enemy that approaches. A combination of artillery and aerial bombardment followed by an assault by engineer or pioniere units is the proven method of capturing enemy forts and strongpoints that cannot be bypassed.

Infantry

The infantry class consists of several different types of units. Infantry are the most common troop type in any army and are the most versatile. Their advantage lies not in their speed but in their ability to fight in cities, forests, and other difficult terrain without the penalties suffered by most other classes. Although vulnerable to artillery fire and armored vehicles when in open terrain, they are almost impossible to dig out of well-entrenched defensive positions unless attacked by other infantry and artillery in coordination. Even the most powerful armored offensive can be halted or seriously delayed by a single well-positioned and well-entrenched infantry unit if the armored units lack proper support.

Engineer and pioniere units are excellent at assaulting heavily entrenched positions because their special training and equipment enables them to avoid the risk of a rugged defense. Bridging engineers, indicated by a bridging icon, carry bridging equipment that allows them to serve as a bridge for other friendly units while dismounted in a river hex. Paratroops and rangers are lightly-armed but highly-trained infantry able to paradrop from air transports. Heavy weapons infantry have higher attack values than ordinary infantry and so are more suitable for assault roles, but move more slowly, making them prime candidates for transporting. Cavalry in this period are actually mounted infantry, with relatively low combat values but high mobility without the expense and vulnerability of organic transport.

Recon

The recon class consists of highly mobile but lightly armored units with superior spotting ranges (which is very important if using realistic spotting rules). They can pinpoint the location of enemy units, seize and hold cities and other objectives temporarily, and successfully attack weakened enemy units and vulnerable units such as units mounted on organic transport. Recon units are most useful in offensive battles, and having one as a pathfinder for each major advance saves you time and helps you avoid ambushes.

Tank

The tank class is at the heart of PANZER GENERAL. Contrary to popular belief, this is not because they were all-powerful, but because they were a key ingredient in the combined arms blitzkriegs that stunned the world in the early campaigns of the war. Because of its speed, armor, and heavy weaponry, the tank class is most able to take aggressive risks and survive. But beware of overconfidence — although tanks dominate open country, they are vulnerable to infantry in cities, forests, and rough terrain, can be stopped by antitank guns and tank destroyers, and require air support when the enemy is able to use tactical bombers against them. A successful general does not win with tanks alone.

Truck

The truck class includes trucks, half-tracks, and a few fully-tracked vehicles used as organic transport (i.e., it is specifically assigned to a unit and cannot be shared). Organic transport is useful for giving otherwise slow units greater mobility but, while mounted, units use the weak combat values of the transport and are easily destroyed. Troops moving by truck should therefore be protected from enemy ground and air attack at all times. Trucks are cheaper and faster on roads, but half-tracks are more sturdy (a good value for expensive units) and move more quickly in difficult terrain.

Air Classes

Air Transport

Most scenarios include a pool of air transport points. Air transport is non-organic transport which allows infantry, light artillery, and light anti-tank units to embark at friendly airfields and disembark at any unoccupied airfield (enemy airfields may be seized in this way). Paratroops and rangers can attempt to "jump" into any non-sea hex. See the "Embark/Disembark" description in the Unit Menu section on page 19 for information about transporting infantry by air. Note that air transports are highly vulnerable to both enemy fighters and air defense units and require fighter escorts, particularly for paradrops behind enemy lines.

Fighter

The fighter class is your key to obtaining air superiority. The fighter class is highly effective when attacking enemy air units, and is able to protect adjacent friendly bomber and ground units through its ability to intercept air missions against them. Fighters can strafe infantry, artillery, and transport units with some effect and help soften up entrenchments, but their primary mission is to clear the skies of enemy fighters and enemy bombers. Losses in fighter combats are typically heavy, so getting the first shot through superior initiative and experience is critical.

Level Bomber

The level bomber class consists of high-altitude, long-range bombers with large bomb loads but limited accuracy. They attack by "carpet bombing" ground targets including cities, ports, and airfields. They tend to suppress rather than destroy targets, but this is advantageous because enemy units suppressed by your level bombers remain suppressed until the end of your turn. Successful attacks by level bombers reduce fuel and ammo points of enemy units. Level bombers are the only class that can assist other units' attacks by inflicting prolonged suppression.

Level bombers only attack the hex they are in, and are immune to all ground units except for AA units and air defense units. When they bomb a victory hex, located in a city, port, or airfield, they inflict prestige damage on the enemy and have a significant chance of neutralizing the target (neutralized targets have no nationality flags). Only dismounted infantry can recapture/repair a neutralized city, port, or airfield.

Tactical Bomber

The tactical bomber class includes aircraft designed for ground attack, which can only attack ground targets; and fighter-bombers, which can also attack enemy air units (though they are generally less effective than fighters). Tactical bombers are useful against a variety of targets, including typically vulnerable targets such as transport and artillery, but also against more difficult targets such as the submarine, tank, and antitank classes. Tactical bombers can also be used to soften up entrenched positions. Note that fighter escorts are essential to the survival of tactical bombers if the enemy possesses fighters.

Sea Classes

Capital Ship

The capital ship class includes battle ships, battlecruisers, heavy cruisers, and light cruisers. Capital ships have the ability to make ranged attacks and may move and shoot in either order. They are best used to defeat the enemy fleet, but after a naval victory can support the ground forces with shore bombardment, especially against soft targets. Capital ships shot at by other capital ships are entitled to shoot back with a ranged attack with any surviving unsuppressed strength points. All capital ships repair extremely slowly, making it rarely worthwhile to obtain replacements for them.

Carrier

The carrier class acts as a mobile airfield for fighters and tactical bombers, but, unlike airfields, carriers can resupply only air units in the same hex. Carriers have excellent spotting ranges but are vulnerable to naval attacks, and their high cost makes them very lucrative targets in terms of prestige. Carrier class ships also repair slowly.

Destroyer

The destroyer class consists of destroyers, destroyer escorts, patrol craft, and torpedo boats. Destroyer class units are the only naval units able to attack submarines (and attack first during their turn) but are easily destroyed by capital ships. Use screens of destroyer class vessels to protect heavier ships from submarines. Together with tactical bombers, they can form effective sub-killer task groups.

Sea Transport

Sea transport is extremely important in amphibious invasion scenarios such as Norway or Crete. Sea transport is non-organic transport which allows ground units to embark at friendly port facilities or coastal cities and disembark in any unoccupied coastal hex. See the "Embark/Disembark" description in the Unit Menu section on page 19 for information about transporting units by sea. Note that sea transports should be protected by naval and air covering forces because they are highly vulnerable to enemy naval units and, to a lesser extent, to enemy tactical bombers.

Submarine

The submarine class can be deadly against enemy heavy naval units because destroyer class naval units and tactical bombers are the only units that can attack them. Submarines always shoot first when they attack during their turn. When submarines are attacked, they are often able to evade the attack by maneuvering or submerging.

DESIGNERS' NOTES

PANZER GENERAL was conceived as an easy-to-play but challenging-to-master tactical/operational wargame in which the player leads an increasingly experienced combined arms force all the way through World War II in Europe.

We wanted a realistic feel without burdening the player with a lot of mechanics: if the player did something that made sense historically, it would work in the game. This meant creating a highly intuitive and user-friendly interface with all the complexity handled by the computer.

Military technology evolved rapidly during World War II and this was an important reality to model in the game. Hundreds of different types of equipment are represented, and players have the ability to replace unit equipment with more advanced alternative equipment. Upgrading unit equipment is an important part of any campaign game.

Different types of units and equipment had very different tactical roles. This is represented by using a common system of unit values, but dividing units into various types with different capabilities according to their historical usage and effectiveness. For example, the statistics for anti-tank guns are close to those of tanks, but with a lower ground defense value. Their historical use as a primarily defensive weapon is encouraged, but not required, by the rule that tanks will almost always get to shoot first if an anti-tank gun attacks them rather than vice versa. Because of this limitation, they cost much less for an equivalent main gun.

Combined arms coordination was central to World War II tactics, and we represent it by giving each unit a turn in which it can move and shoot, with the tactical subtlety lying in the sequence and of attacks involved in a particular local engagement. Entrenchment levels are a key concept in the game: units able to dig into a prepared position are tougher to root out. The concept of "rugged defense" represents ambush or the ability to open fire with surprise at close range, conditions which favor the defender and can devastate an attacker. Rugged defense really helps infantry, particularly well-entrenched infantry.

Repeated attacks on such a unit lower entrenchment levels, force it out of good tactical positions, and give the attacker intelligence useful for further attacks. In the game, the way to attack a strongly entrenched unit is with a combination of aerial and artillery preparatory bombardment, followed by ground attacks by one or more units. Entrenching takes time unless a unit begins a scenario entrenched. Some units, such as infantry, can take better advantage of terrain and therefore can entrench more quickly than others. Moving units have a zero entrenchment level, but gain the base entrenchment level of the particular terrain they occupy when they stop.

General Strategic and Tactical Notes

Requisitioning Units From HQ

The prestige cost of units only roughly correlates with their effectiveness, so examine combat values closely before requisitioning new or replacement equipment from headquarters.

Some values can easily be overlooked. Maximum fuel capacity and especially maximum ammo capacity need to be carefully examined, and are more of a constraint if the unit is advancing than if stationary on defense. Remember that a unit can easily use up several rounds of ammo in a turn if repeatedly attacked or if providing defensive fire in support of adjacent units that are being attacked.

Close defense is another value that you should not overlook. If the unit runs into infantry in the woods and city hexes common on most battlefields, the unit defends using its close defense rather than its ground defense value.

Terrain

Careful attention to terrain is well worth it. Rivers are probably the most significant obstacle and make excellent positions to defend behind. Bridging units are very helpful in terrain with many rivers but few roads or bridges. Cities, besides being victory objectives and prestigious to capture and hold, are the next most significant obstacle because of the strength they offer the defense. Cities, swamps and mountains affect opposing units by minimizing initiative differences (because of the close range combat involved); entrenchment and experience levels become key. Cities, woods, and mountains also allow defending and attacking infantry to shoot against the close defense number of the enemy unit as mentioned above (except that infantry attacking against infantry who succeed in putting up a rugged defense shoot at the defender's ground defense value).

Entrenchment levels are a feature of units, not terrain, but affect combat much as terrain does — they make a devastating rugged defense more likely. Entrenchment levels can be reduced by attacking or bombarding a ground unit.

Weather

Bad weather generally helps the defender and helps the side with air inferiority because of air units' inability to attack and their reduced scouting ability during bad weather. Interludes of bad weather are good times to resupply and rebuild units or make them overstrength while waiting for the weather to clear.

Don't Let Your Units Die

Don't let your units fight until destroyed — if you can pull them out with even 1 strength point left, they can be rebuilt more cheaply per strength point than buying a new unit (even if using elite replacements) and get to keep their experience as a bonus. This represents the importance of veteran cadres to the performance of new recruits.

The importance of preserving units has many tactical implications. One is to ensure that units which risk heavy losses shoot before moving so they can retreat to safety if grievously weakened. The corollary of this principle is, of course, to mercilessly wipe out crippled enemy units to keep the enemy from rebuilding them.

Combined Arms

There are many aspects to combined arms tactics, but the most important is: armor is the king of open ground and infantry is the king of restricted terrain. If you consistently violate this rule, you'll be lucky to end the war as a Panzer Private.

As in the childhood game of scissors-paper-stone, every World War II troop type has a relative advantage over some other type and a relative disadvantage compared with others. Tanks can roll over infantry in the open but be stopped dead by them in bad terrain or entrenchments. Artillery can slaughter infantry but can be slaughtered by tanks. Anti-tank guns can defend well against attacking armor but fare poorly against infantry. Air defense and anti-air units are poor against ground units but a major threat to aircraft, which avoid them but can freely strike anything else moving on the ground (except later in the war, when other ground units acquire their own organic air attack values and can shoot back).

Combined arms tactics involve using a variety of unit types in close cooperation, each attacking the enemy where it has an advantage and being screened by the other arms where it has a disadvantage. On the advance in open ground, for example, tanks and tank destroyers would lead, with self-propelled artillery and air defense units and infantry mounted in half-tracks or trucks "tucked in" behind them where the enemy cannot attack them without first forcing the armor out of the way. Recon units might be in or immediately behind the front line to use their superior spotting range to scout ahead.

Although an army consisting solely of tanks might be able to win a battle (at least, a defensive battle), it is likely to lose badly to a balanced force of equal size. Both in the overall army and in the battlegroups assigned to spearhead particular attacks or defend particular sectors, the subtle skill of using combined arms is one of the most important talents for playing PANZER GENERAL. There are many aspects to combined arms, as you will learn as you play, but a stereotypical example follows.

Attack on a prepared position: To avoid ambushes and wasting time by sending troops to inappropriate locations, you should scout to uncover enemy positions. This can involve sending aircraft along a path crossing over the terrain you are interested in or pushing a recon unit to the limit of what is currently visible (or one hex short of that, if you want to be careful). Otherwise, use a unit somewhat to the rear of your front line whose full move would take it ahead of your line but to a hex that is still visible. When it arrives there, it spots additional hexes and further units from the rear can leapfrog forward, increasing the spotted area.

Suppose the enemy is spotted, heavily entrenched in a victory objective city directly ahead of you, with artillery positioned behind the city and infantry or armor to either side. You decide you can't successfully bypass it and turn back to take it later. Your priorities are to eliminate the supporting artillery, clear away the nearby enemy units, and weaken the unit defending the city. A typical sequence of events could be:

- Use fighter attacks to weaken entrenchments.
- Use tac bombers to attack artillery and inflict losses — getting rid of the enemy artillery is key to preventing heavy losses to your infantry.

- Have your tanks attack enemy tanks/tank destroyers or attack infantry on the other side of the city (don't attack with infantry yet since strong surviving enemy artillery will chew it up).
- Move artillery into range of the city and deploy.
- Move a first wave of infantry adjacent to the city in front of friendly artillery.
- When the enemy turn comes he can't resupply, build, or successfully attack. Your infantry is protected by your artillery support, the enemy can't attack your infantry with air power since your fighter will intercept, enemy artillery however, will try to harass you.
- On your next turn: your fighter over the city attacks and moves to an adjacent hex.
- If enemy tanks or infantry on flanks is gone, your armor or tank destroyer passes forward to attack enemy artillery while tactical bomber moves over city to attack it.
- Friendly artillery bombards the city.
- Your first assault wave attacks the city, then retires away if the enemy survives. Pionieres and engineers are more likely to win immediately since they ignore enemy entrenchments and prevent an enemy rugged defense.
- Your second wave moves adjacent to the city, attacks, and probably wins.
- Fresh troops from your rear echelon occupy the city.

Make sure you pay attention to the estimated combat results displayed for you by your staff as you plot your attacks, although actual combat results will vary. The only important variable the estimate leaves out is the risk of facing a rugged defense.

Mounting an Offensive

To win a major victory, you must not only win — you must win early. In the campaign game, the difference between a major and minor victory is important to your future. Usually a major victory is won by taking your objectives especially early. If you take them too late — usually about 2/3 of the way through offensive battles — the best you can do is a minor victory. On defense, how many objectives you hold at the end of the battle is the key. Tenacity and endurance count. Avoiding friendly losses and inflicting losses on the enemy don't count for determining victory and defeat, although, particularly in the campaign game; both of these goals help you improve your core army and thereby help in future battles. Since only victory objectives count, you must avoid being led astray by diversions.

Part of staying focused on objectives is making and implementing a plan and keeping your forces organized accordingly. Check the Strategic Map to see where victory objectives are and the best routes to them, preferably routes that pass by a number of them. Paths that threaten multiple objectives are preferable because the enemy must build and deploy units to defend them all, thus leaving the target you wish to strike weaker before your blow.

The tutorial speaks in terms of battlegroups because thinking in terms of battlegroups tasked with driving to specific objectives is one good way of keeping on track and avoiding time-wasting distractions. To win in PANZER GENERAL, time is the one thing you cannot afford to waste. Offensives tend to become dissipated

and diffuse over the entire enemy front rather than just the critical sector. Units tend to wander across the battlefield in the pursuit of temporary and often irrelevant tactical advantages such as picking off weakened units. The result is that a decisive victory can become a minor victory or a loss.

Attacking on a broad front is an unwise dissipation of strength except in fluid "pursuit" battles such as Kharkov where you are chasing or racing past the enemy to your objectives. Single, narrow spearheads are too limiting, but a single, broad spearhead is an effective way to punch through strong defense lines into more favorable ground beyond, while multiple spearheads work well in intermediate situations with widely-spread objectives. Lines of advance threatening multiple objectives force the enemy to disperse to protect them all, weakening him everywhere, while converging on an objective from several directions lets you direct the most combat strength against it.

Force balance is essential on the offensive because of the varied nature of the terrain and enemy forces. Any force that attacks woods or towns needs infantry.... If you do not have air superiority, consider an AA unit or two and self-propelled air defense units to provide some deterrent to and protection against enemy aircraft. This works best if you have at least a small fighter force to pick off weakened enemy aircraft after they attack.

The Defense

On defense, build multiple lines of defense — get ATGs and infantry, which entrench more quickly, focusing wherever possible on defending river lines and putting infantry in cities, mountains, and forests. Artillery sited behind towns to provide defensive support is especially useful.

Active defense is the strongest form of defense. It is a very effective practice to launch local counter-attacks immediately to neutralize any enemy penetrations before the enemy can settle into a captured position.

Combined arms on the defense is the converse of combined arms on the offense. An ideal defensive position consists of infantry in bad terrain immediately supported to the rear by artillery and air defense units (with armored and infantry reserves to counterattack breakthroughs in open and close terrain) and ideally, fighters to shoot down enemy tactical bombers. Additional support in the form of tactical bombers to weaken enemy artillery and the attacking units they support. If you can keep your fighters in the air over your lines, they can intercept bomber units or attacks on adjacent ground (unless first attacked by the enemy themselves).

You will usually have air inferiority, at least initially, when on defense. Sometimes your skill can turn the tables, but more often you will be swamped by enemy air power and air defense units must become your recourse.

One thing to note, particularly important on defense, is that units which cannot retreat surrender instead — if a unit is particularly likely to be beaten, try to leave room for it to fall back. The disadvantage of this, of course, is that it makes it harder to put artillery and air defense units in direct support of the unit.

The Air War

The air war is a subsidiary but critical part of the war. Air units cannot take or hold terrain (only land units can do that) but they can prove a major help or hindrance depending on whose units are flying overhead. The ideal is air supremacy, such as

that enjoyed by the Allies in the later years of World War II, which means unopposed control of the air. Your minimum goal (unless seriously inferior in the air) is air superiority, which means that you generally have the advantage in the air and can range freely over enemy lines to launch ground attacks. If you achieve air supremacy, keep your air units constantly busy launching attacks on ground units to increase their experience levels. With air supremacy, your soft targets are also safe from air attack and your air force can provide valuable reconnaissance of the enemy's disposition while he cannot see yours.

With air inferiority, your soft targets, especially trucks, artillery, and pioniere or engineer units, get hammered. Your fighter and air defense units should concentrate on enemy bombers, since the fighters can do only minimal damage to your ground units. Your air defenses can provide some shelter from enemy attack for your air units.

Fighter/bomber coordination was a major doctrinal issue on both sides during the war in Europe, notably in the aerial Battle of Britain in 1940 and the air war against Germany from 1943 on: should the fighters be tied to close escort of the bombers or range free to hunt down enemy fighters before they can approach? From the aerial defender's point of view, should his interceptors target the attacking bombers or the escorting fighters? When attacking escorted bombers, first attack the fighters to weaken or destroy them. If successful, this reduces the effect of, or prevents intercepting attacks on the bombers. Air defense units work the same way; though they are best attacked by ground units, good tactical bombers and pilots can take them out or severely weaken them from the air. Sometimes the attacker escapes without loss by shooting first to devastating effect, but considerable losses to the attacker are more typical. When coordinating air units, remember that different aircraft move at different speeds — don't leave your bombers accidentally unescorted because the fighters have moved too far. It's usually helpful to move the slowest units first if they can safely do so.

Strategic bombers can inflict prestige losses on the enemy by bombing victory objectives, destroying airfields, bombing other enemy-held cities into neutral status (i.e., "neutralize" them so the enemy can't build there or gain prestige from holding them); or bombing units and destroying their strength, ammo and fuel while suppressing them for the entire turn. Veteran and crack strategic bomber crews are very effective. Note also that "heavy" and "medium" level bombers are inherently more effective than "light" level bombers, but that the relative difference narrows considerably with experience. Level bombers all have the same hard and soft attack values, so the real combat difference is revealed by other values, including their air attack and air defense values. Bombers with high naval attack values can also be extremely useful against ships.

The Naval War

Most scenarios don't include naval warfare, but naval units play an important role in almost all the scenarios in which they appear. They are expendable, and should be used to defeat the enemy navy and then support the ground forces with bombardment, or at least prevent the enemy fleet from bombarding your forces. Note that bombardment is much more effective against soft targets than hard targets.

In naval battles, keep the scissors-paper-stone interaction of destroyers, submarines and capital ships in mind. Since capital ships can't fight back against submarines, use an escort screen to counter this threat.

Quality Experience

In addition to getting a chance of shooting first, experienced units lose fewer casualties and inflict more casualties than would otherwise be the case. Units gain experience by destroying or at least forcing enemy units to retreat. The most experience is gained by defeating enemy units with better experience or equipment. Building up units to overstrength status is very popular with some playtesters because their combination of numbers and quality can smash some enemy units with a single attack. Building up to overstrength takes time, however, and enemy artillery and air bombardment have the annoying effect of cutting your units back down to size.

CAMPAIGN NOTES

Force Balance

Playtesters have found that a range of approaches work, but there are a number of consistent factors. The largest parts of core groups tend to be tanks, infantry, and aircraft. Tank strength is typically from 1/4 to half of the core group, generally increasing over the war. Infantry strength is typically 1/4 of the core group and slowly declines on a battlefield where only veteran infantry can effectively defend themselves. Some players use paratroops, others don't. The proportion of engineers and pionieres (who are very costly in terms of prestige) to other infantry also varies widely.

Air strength varies the most of the "big three" types of forces, from a couple of fighters up to over 30%, with the "big wing" proponents using one or two level bombers and the rest split between fighters and tactical bombers. Some players prefer the greater ground attack ability of dedicated tactical bombers while others prefer the added anti-air capabilities of fighter bombers, particularly when facing strong enemy air opposition. Aircraft first become available in Warsaw (although the first fighter-bomber is not available until Norway).

Some players' core groups include up to 10% each of artillery and anti-tank units, while others use none or rely on auxiliary forces. Self-propelled artillery is more useful on the advance, but towed artillery, if entrenched and protected against air and ground attack, suffices on the defense or for slow-moving attacks such as those through mountainous or other unfavorable terrain. Artillery, like pionieres and engineers, are magnets for enemy air attacks — so use of these troop types necessitates a strong air force or air defense. Few playtesters used more than a single anti-aircraft unit or more than a few air-defense units in their core groups for the 1939 campaign, largely because they are not necessary if you control the air as the Axis tends to do in the early war. Air defense units are also often available as auxiliaries. Even players de-emphasizing airpower found a small fighter force useful for picking off isolated enemy bombers, forcing the enemy to escort his bombers, and for reconnaissance. The main alternative to air reconnaissance (other than turning "Hidden Units" off) is recon units. Players who use them usually use no more than one per spearhead for scouting purposes. Late in the war, they have to be used more carefully in the face of increasingly powerful enemy units.

Though the force percentages can vary significantly, each approach strikes a particular combined arms balance between the types of units the player uses together to achieve victory on the battlefield. Some choices limit others. For example, an army with a powerful air force will have little need for air defense and can afford to deploy a lot of expensive artillery and engineers, which, however, are no more than vulnerable targets if the enemy rules the skies. Auxiliary units available to you will often help deal with key gaps in your force mix for particular scenarios — for example, air defense in the Low Countries, naval, air and paratroop units in Norway and Crete, and pillboxes for D-Day (hope your career takes a more successful track!).

Auxiliaries vs. Core Units

One dilemma built into the campaign game is the choice between getting experience for your units and letting the auxiliaries take the bulk of the punishment. Use only auxiliaries for scouting into unexplored territory (because of the risk of ambush), and for those occasional sacrificial attacks needed to soften up a tough enemy target. Topping them off with elite replacements is rarely worth it. Remember that HQ will provide you with elite replacements for your core units once the battle is over, so in the late stages it is a good idea to build up full-strength units to over-strength while leaving crippled ones for HQ to top off.

You are not penalized for losing auxiliary units (though the enemy does gain prestige for killing them). One implication of the enemy's ability to gain prestige from destroying your units is that it is better to disband a unit in a hopeless position than leave it for the enemy to destroy for the prestige on their turn. Another implication is that it is acceptable to use up as many auxiliary units as necessary to win your battles. Let your core units be "glory hounds," finishing off units already weakened by the auxiliaries and gaining the prestige. You'll need all the prestige and experience your units can gain.

Upgrading and Elite Replacements

Players' styles differ significantly on when to spend prestige to upgrade a unit's equipment and when to give it elite rather than regular replacements. These are important decisions, and there is a trade-off between these and raising new units because you rarely have enough prestige to do everything you want.

Upgrading

The upgrade issue is easier — you can't afford to allow your technology to become obsolete, but you can't afford to upgrade every time new technology becomes available. Some units never upgrade — pioniere and engineer units never get any better than their initial values. Infantry is typically upgraded in type once in 1943, although some players change the type of infantry as necessary or wait until Wehrmacht infantry gain experience before upgrading them to paratroops, pionieres, or engineers. Infantry, particularly the slower-moving heavy weapons, pioniere, and engineer units, also get half-tracks or at least trucks as soon as possible. Aircraft are typically upgraded one to three times the course of the war, sometimes more, while tanks can easily be upgraded three to five times (many players will be surprised by how feeble the German tanks that won the early blitzkriegs really were — they won through superior skill, as must you as a Panzer General).

Naturally, experienced units receive the best equipment — they can use it most effectively and it increases their survivability. As you play, you will probably develop a preferred upgrade path that fits your force balance and tactics. Sometimes you will have parallel upgrade paths: before the development of the all-purpose Panther and Tiger, German tanks tend to fall into the anti-armor (Pz III) and anti-infantry (Pz IV) categories, each with a separate natural upgrade path. You may also wish to experiment with different alternative approaches to force structure.

Elite Replacements

This is where player preferences seem to vary widely. One playtester who emphasized armor and minimized air power won by largely ignoring attrition from enemy air power, but his units often had to fight at strengths of as little as 5. If harassed by constant air attack, building units overstrength is not worth the time. In contrast, most players felt strongly about the value of overstrength units and their ability to overwhelm their opponents in combat or take heavy losses and remain effective. Units can be made overstrength only if highly experienced, so these players made using prestige for elite replacements a priority (sometimes even making selected auxiliary units overstrength). These players differed, however, on their priorities. Some players placed a high priority on enhancing their artillery because it can stay overstrength for a long time and preserve its destructiveness through the war, while others neglected their artillery, using its firepower mainly to weaken entrenchment levels or shoot at vulnerable soft targets. Some cultivated their strategic bomber force, while others neglected it. Some used paratroops as expendable units while others used veteran paratroops to secure objectives deep within enemy lines. Some put priority on enhancing front-line tank and fighter units, while others would rely on constant combat to bring these units back up to snuff and put first priority on building up second-line units less able to constantly gain experience through combat (for example, artillery tend to be particularly slow to improve).

THE CAMPAIGN GAME

In the extended campaign game, your career as a general can cover the entire war. If you do well, you can win the war. If you do poorly, you could be prematurely retired by the General Staff or even lose the war. You play a key role in decisive battles, but the burden of a war on two fronts means you cannot fight in both places at the same time. At certain points in each campaign you have the opportunity to switch fronts, and, if your successes against England or the Soviet Union are decisive, you may end the war on one or both fronts altogether.

The campaign game covers the entire war, but you may choose to start your career at any of five different points: the 1939 Blitzkrieg, the 1941 Western or Eastern Fronts, or the 1943 Western or Eastern Fronts. How well you do can change the course of history.

In the campaign game, you control a "core group" of units and, in most battles, non-core or "auxiliary" units. The core group's strength flags are black on gray, and the auxiliary units' strength flags are white on gray. Auxiliary units serve with you only for the duration of the battle, while you take surviving core units with you to the next campaign battle. Your units gain combat experience and can be upgraded with new equipment over time.

Your core units are already deployed in the first scenario of any campaign. In later campaign scenarios, you may deploy your core units freely within designated deployment zones.

The 1939 Blitzkrieg

Beginning in September of 1939, the battle for Poland is the first in a series of blitzkrieg campaigns across Europe, where successful generalship takes you from Warsaw to Oslo to Paris. The speed and degree of success of your offensive in each campaign affects your resources in future campaigns. If you do particularly well, you may have sufficient time and prestige to lead an invasion of Great Britain, thus ending the war on the Western Front with a decisive blow. If you cannot conquer Britain now, or later, the English shall remain a thorn in your side for years to come.

The 1939 campaign is recommended as a starting point because the Allies are not yet able to bring their superior economic power to bear against you. Their forces are easier to defeat, giving you the opportunity to win the war on the Western Front earlier in preparation for the inevitable showdown with the Soviet Union.

Your goals from the start are, first, to win, second, to win quickly, and, third, to minimize your losses — particularly avoiding destruction of core units, and maximizing the experience gained by your core units. Your army starts as an infantry force with mostly weak tanks. Priorities in the Polish scenarios are (1) gaining as much experience as possible for your units, (2) upgrading and adding tanks, and (3) building a small air force that can gain experience in air combat and ground attacks in the Battle of Warsaw before proceeding to the more deadly aerial combat awaiting it over Norway and western Europe.

You must try to score major successes quickly early on to have a chance of invading England in 1940 and ending the war on the western front. If you fail to do so, you will have further chances to win the war against England if you triumph in the deserts of Africa, or you may choose to fight on the very different eastern front against the Soviets. When choosing which front to fight on, bear in mind that the Soviets have numerous but less powerful aircraft and infantry but tougher armor, meaning that the challenge in the air will be somewhat less serious in the east than in the west. The difference between these two fronts may affect how you choose to structure and develop your core army group of units.

The 1941 Western Front

Beginning in March 1941, you attempt to crush the Allied forces in North Africa and seize Egypt, the gateway to the Middle East. If you are successful, you may be able to lead an invasion of Britain or attack the Soviet Union's oil fields through the Caucasus Mountains on your way to further glory.

Careful planning and large fuel and ammo capacity are helpful in the desert, where supply is seriously reduced except along the coast, roads, trails, and in cities. Since the best routes to your objectives tend to be narrow ones, lead off with strong, experienced armor. Due to the open nature of desert warfare and the difficulty of obtaining supplies for ground units, air power becomes more important.

The 1943 Western Front

In 1943, heavily committed on the Eastern Front, the Axis had only limited forces to protect thousands of miles of European coastline against an Allied invasion that could come anywhere. You begin your career in Sicily, facing the first Allied invasion of western Europe. Unless you transfer to the Eastern Front, you may have a chance to stop the Allies on the beaches in Italy and in Normandy. If you cannot contain the Allies in France or force them back with a last, desperate winter counter-offensive in the Ardennes, then your last chance is to avert total defeat at the gates of Berlin and win a tolerable armistice.

You start on the defense in the excellent defensive terrain of Italy. Throwing the enemy back into the sea is great, if it works. Otherwise, sound defensive tactics and trading space for time will be necessary. Air defense units and anti-tank guns will be of more value than in other campaigns; a small, crack fighter force will help your air defenses punish allied air units; and detachments of Tigers or Panthers will be able to launch sharp counter-attacks against exposed enemy units. Artillery is useful on defense, but needs protection.

The 1941 Eastern Front

You begin your career leading the central spearhead of the greatest invasion in history — Operation Barbarossa, the conquest of the Soviet Union. If your initial thrust is decisive, you may earn the prestige necessary to avoid a diversion towards Kiev and instead press on directly to Moscow before mud and snow bring your panzers to a frustrating crawl.

The 1943 Eastern Front

You begin the 1943 campaign in the east with a slashing counteroffensive aimed at cutting off the overextended spearheads of the Red Army, confident of victory after their winter offensive sent your troops reeling back all along your front. If you recapture Kharkov and your other objectives, you gain the initiative and the prestige necessary to drive once more toward Moscow and end the war in the east. If you fail, you have only a few more opportunities to stop the Soviet steamroller on its road to Berlin.

If you are good and fast, your blitzkrieg can knock out the Soviets in two scenarios (Smolensk and Moscow in '41; Kharkov and Moscow in '43). If not, it could be a long war against increasingly experienced and powerful Red Army forces. To deal with the formidable enemy armor, use only elite replacements for your armor units and use tactical bombing to weaken the enemy armor to help your attacks. This makes air superiority important; fortunately, the Russians, at least in 1941, are not that good and you can keep an edge. If you are ultimately forced onto the defensive, the dreaded 88 ATG, heavy weapons infantry, and supporting artillery will make the Russians pay for every city they capture.

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